

Union and Management
Push C&O Hospital Plan

September 23, 1957

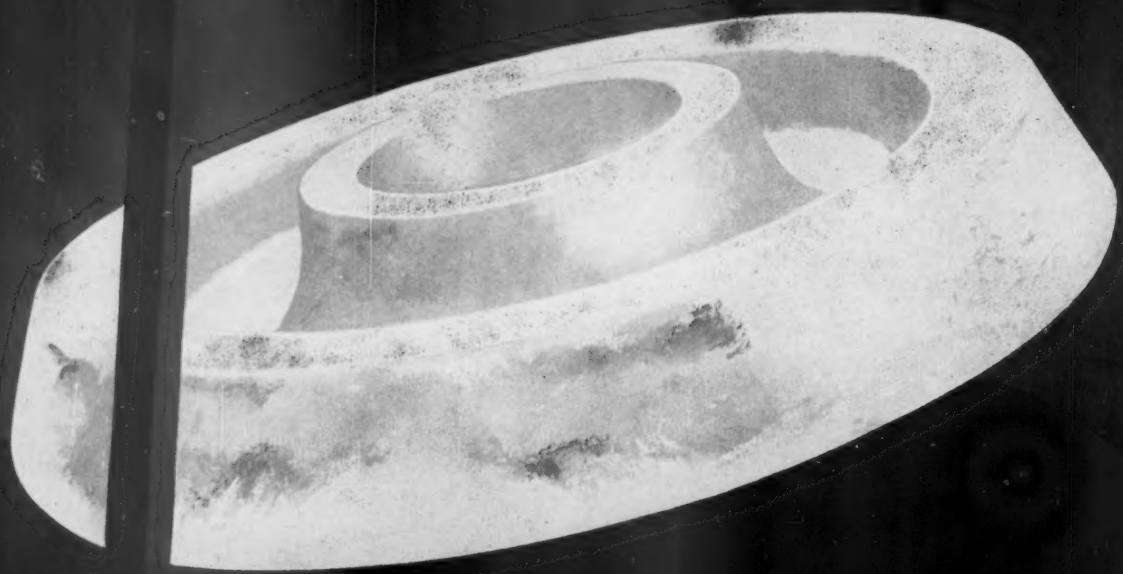
RAILWAY AGE *weekly*



Fire losses ↑ are hitting a record high

Freight Houses

New ways to get more from what you have



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The forged wheel blank shown above is about to be rolled and expanded to final rim contour and size on the Edgewater Wheel Rolling Mill—the most powerful mill of its kind in the world. The rolling process, plus advanced metallurgical techniques account for the extra mileage of Edgewater Wheels.

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FR-16

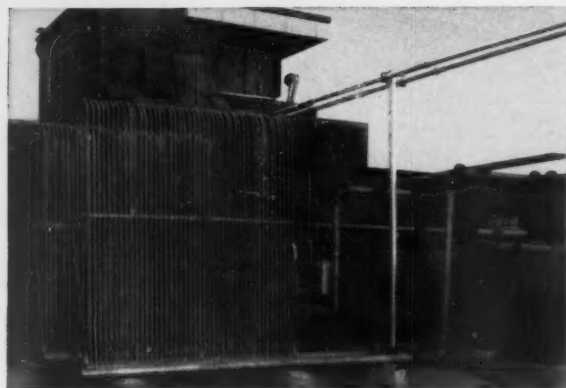
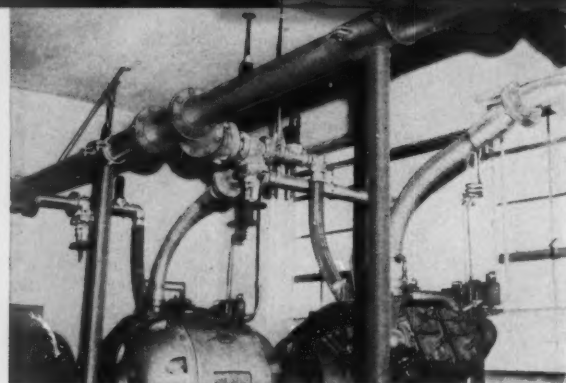
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Corrosion costs you more than Wrought Iron

Week at a Glance

Departments

Facts & Figures	37
Financial	37
Freight Car Loadings	39
Letters from Readers	15
New Equipment	39
New Products Report	38
People in the News	37
Railroading After Hours	36
Railway Market	39
Supply Trade	43
The Action Page	46

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'We need the public on our side'p. 9

Public statements by responsible railroad industry leaders put stress on importance of getting popular understanding of railroad problems and objectives.

New tank cars to do old jobs betterp.11

New developments in tank car construction have advantages for shippers and railroads alike. Examples: a car without under-frame or dome, 19,000-gallon and over cars, and a car with a new-type nickel lining.

They go without jackets nowp.12

A new look in high-pressure cars is the result of extensive tests which proved the suitability of LP gas tank cars without insulation.

Three ways to a better freighthouse . . .

1. How the Wabash did itp.16

The key is a loudspeaker communications system and centralized checking. It smooths the workings of a 211-car capacity installation at East St. Louis, helps speed 1,250 tons of freight handled in a day.

2. How the Missouri Pacific does itp.18

Again, good communications is the key. At the Miller street freighthouse in St. Louis, a big redistribution point for the railroad, 35 men do the work 78 used to do—better.

3. Jersey Central expands facilitiesp.22

At Elizabeth, N. J., the road has made room for two more freight forwarders, a total of five. Modern, roomy platforms replace 18 scattered facilities.

C&O hospitals show what teamwork can do.....p.30

From mumps to maternity, this road's medical care program answers almost any need. Here's how the C&O Employees' Hospital Association, built on labor-company cooperation, works.

Fire and accident losses cost too muchp.34

Insurance engineering, with hard-hitting preventive programs backed by top-echelon management, offers a way to better railroad records.

The Action Page—Knells for the passenger business?p.46

Trouble with too many appraisals of railroad travel is that the critics don't seem able to see the trees for the forest. Sure there are parts of the business in bad shape but there are many operations doing well and some with good potentials.

Short and Significant

One way to cut out a freight station . . .

has been found by the Western Pacific. It felt its use of two-way radios in the automobiles of industry clerks "on the street" around San Francisco was so successful it could afford to abandon its Fruitvale, Cal., facility. A shipper desiring car placement or other service phones the WP's Oakland freight house and his message is relayed immediately to the outside man.

Shipper views on the 'Symes Plan' . . .

will be featured in the October 7 issue of Railway Age and in the October issue of sister-publication Railway Freight Traffic. The federal-car-pool plan will also be highlighted in a debate at the Atlantic States Shippers Advisory Board meeting at Harrisburg, Pa., September 25.

ACL moves to head off 'flu' invasion . . .

Anticipating possible outbreak of so-called Asiatic influenza, this road has made preventive vaccine available on voluntary basis to all employees.

It's time for transit action now . . .

Charles H. Tuggle of the Metropolitan (New York) Rapid Transit Commission declared recently. "Steeply rising costs and accelerating competition of heavily subsidized and tax-exempt facilities for vehicular traffic are steadily disintegrating privately-operated tax-paying commuter rail facilities." Meanwhile, New York's Mayor Wagner was reported "for" the general idea of the proposed New York-New Jersey transit "loop," but "against" methods advanced to implement it.

New C&O newspaper bows in next month . . .

To be called the Chessie News, it'll come out every other week with C&O "family" news emphasis. C&O's monthly magazine, Tracks, now becomes a bi-monthly and is to "dig deeper into the meaning of major developments."

Over \$2.5 billion in federal-aid funds . . .

was available to the states on August 31 for work on the national system of interstate and defense highways. This huge balance results from the addition to previous balances of the \$2 billion authorized by Congress for the fiscal year 1959.

Deficiency of truck driver or vehicle . . .

was found in 88.4% of the 12,018 vehicles which received a thorough inspection during the third 1957 nationwide safety road check by the ICC's Bureau of Motor Carriers in cooperation with state enforcement agencies. Most numerous mechanical fault disclosed by the check was defective braking systems, of which there were 7,368.

Week at a Glance CONT.

Current Statistics

Operating revenues, seven months	
1957	\$6,106,484,249
1956	6,043,558,324
Operating expenses, seven months	
1957	\$4,805,911,027
1956	4,691,148,995
Taxes, seven months	
1957	\$627,112,171
1956	628,802,047
Net railway operating income, seven months	
1957	\$518,790,232
1956	573,280,686
Net income estimated, seven months	
1957	\$395,000,000
1956	447,000,000
Average price 20 railroad stocks	
September 17, 1957	83.13
September 18, 1956	95.74
Carloadings revenue freight	
Thirty-six weeks, 1957 ...	24,933,137
Thirty-six weeks, 1956 ...	25,705,197
Average daily freight car surplus	
Wk. ended Sept. 14, 1957	20,710
Wk. ended Sept. 15, 1956	4,958
Average daily freight car shortage	
Wk. ended Sept. 14, 1957	1,831
Wk. ended Sept. 15, 1956	10,280
Freight cars on order	
September 1, 1957	79,258
September 1, 1956	122,870
Freight cars delivered	
Eight months, 1957	67,894
Eight months, 1956	43,897

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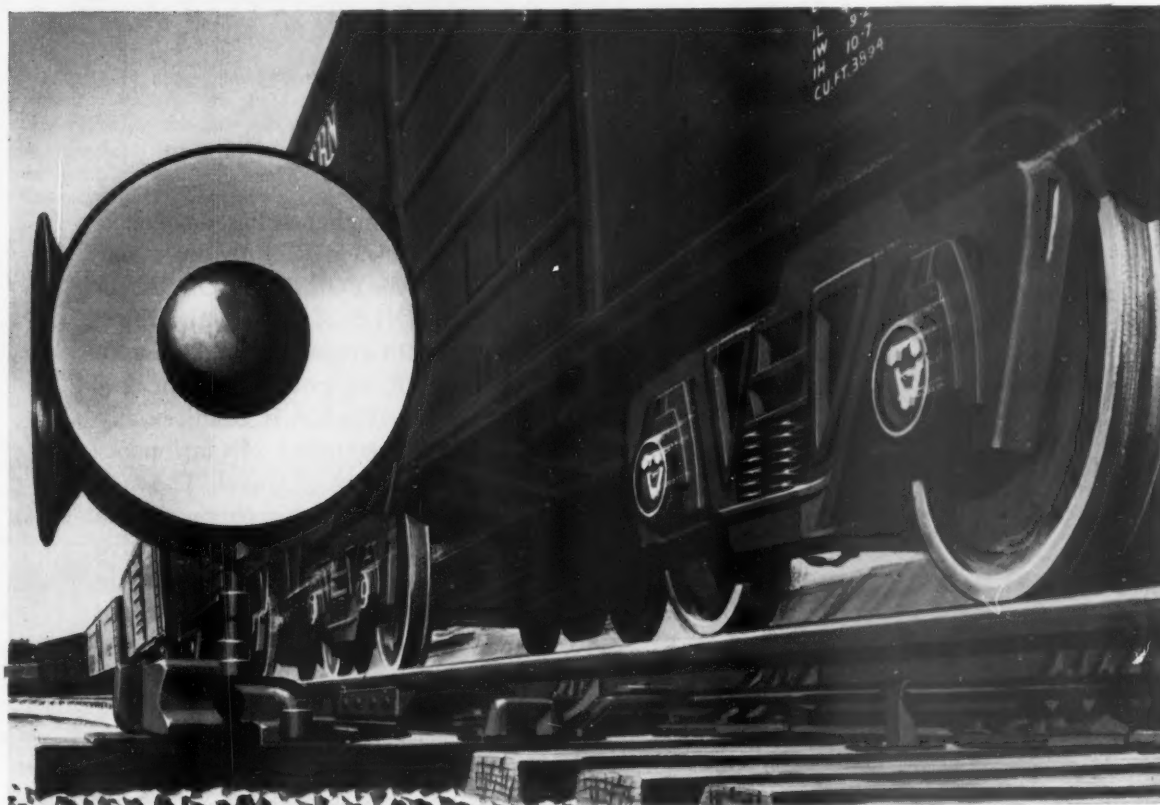
Georg J. Linder, Continental European Representative


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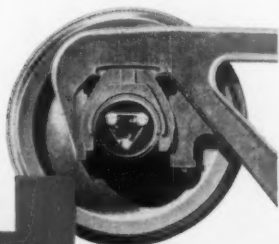
why freight service today is the fastest in history...



ONE REASON IS TWO-WAY RADIO. Now the conductor in the caboose a mile behind is as close to the engineer as the phone at his fingertips. So are other trains, yardmasters, and the dispatcher 200 miles away. On some 13,000 locomotives and cabooses, instant "on the run" radio contact is saving countless hours each day.



Another  contribution
to railroad
prosperity



ONE MORE BIG REASON IS HYATT HY-ROLL BEARINGS for non-stop freight. Hyatts banish hotboxes, one of the major causes of freight train delays. They eliminate time-wasting waits for inspection and lubrication, too, because they have a three-year grease supply sealed in. The new simplified design of HYATT Hy-Rolls makes them so economical to install and maintain that 38 progressive railroads have already adopted them. Roller bearings play a vital part in the multi-million-dollar rail modernization program to make America's freight service *better than ever before!* Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT

HY-ROLL BEARINGS

FOR NON-STOP FREIGHT

**TODAY'S
BIG**

**DRAFT
GEAR**

NEWS

Cardwell Westinghouse has developed an amazing new FRICTION draft gear that packs over FORTY THOUSAND FOOT-POUNDS of impact absorbing capacity* with a reaction or sill pressure well under 500,000 pounds. It's the new MARK 40 and it's A.A.R. conditionally approved. Fits standard 24 $\frac{1}{2}$ inch pockets. Has 3 $\frac{1}{4}$ inches of travel. The *high absorption* and *low reaction* characteristics of the MARK 40 make it the positive answer to today's heavier railroading requirements . . . vital for reduction of damage claims and car maintenance.

...The New WESTINGHOUSE **MARK 40**
FRICTION DRAFT GEAR



A.A.R. CERTIFICATE NO. 35

The A.A.R. tests prove . . . that the new MARK 40 is the highest capacity friction draft gear ever offered for standard pockets.

*Official A.A.R. Capacity: 42,420 Foot-Pounds.

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RAILROAD SPOKESMEN AGREE . . .

'We Need the Public on Our Side'

On their feet and with definite points of view, industry leaders are hammering home their beliefs in the railroads' future in public statements that are intended to spark new public attitudes.

The last several days have seen many

top railroad officials striding to speakers platforms to give their versions of the "railroad story." The subject matter varies, the approach is different speaker-to-speaker, there's a wide range of opinion on specific issues. But a recurring

theme is that, if they are to achieve the goals progressive elements of the industry have set, the railroads must first get their story across to the people.

Here's a brief sampling of what is being said:

MARSH: GENERATE PUBLIC AND LEGISLATIVE UNDERSTANDING . . .

One of those who took the floor (addressing an audience of railroad officers and suppliers at Chicago) was Santa Fe President Ernest S. Marsh. He said that what the railroads need most is "more friends."

The industry's biggest problem to him "is one of unequal competitive opportunity. . . We do not have enough friends to get constructive things accomplished." He urged efforts to create sympathy "that will cause the application of common

sense and fair principles in transport policy. Maybe we can never swing 170 million people our way, but surely somehow we will have to convince a majority of two important and controlling groups—435 people in the House of Representatives and 96 in the Senate."

Mr. Marsh declared that railroads must keep on modernizing their properties despite rising costs if they are going to be able "to insure the vitality of railroad service."

He singled out regulation and inflation as the industry's big headaches. "This question of pricing our services in a competitive field where competitors are being subsidized by the taxpayer is most perplexing. I have thought it to be the basic evil. . . It is fair to say that inflationary pressure hits an industry like the railroads harder because prices are not so easily nor so readily adjustable and labor costs make up such a large proportion of operating expenses."

SYMES: RAILROADS WILL BE A GROWTH INDUSTRY . . .

"We are not on the way out; I think we are on the way in." Thus PRR President J. M. Symes addressed the Executives' Club of Chicago September 20.

He tempered the statement only by adding the provision *if* railroad managers "are big enough to intelligently solve the problems they face—and I, for one, believe they will."

Mr. Symes said that the thinking in his company is that "the industry is rapidly coming to grips with the obstacles to growth which are its own fault and which can be overcome from within."

"As to the obstacles imposed from without, we believe that the public, the buyer of transportation, and the government are all three at last beginning to see that it is

in their interest—and not simply that of the railroads—that these obstacles be removed and the railroads be permitted to grow."

He listed the four key external obstacles as being subsidized competition, heavy taxation of rail facilities, regulation and inflation, but said he's confident of the railroads' "staying power."

FISHER: ELECTRONICS TO LINK BUSINESS—OPERATIONS . . .

Going a bit further than he had in a forecast made some months ago, Reading President Joseph A. Fisher told a Pennsylvania engineering group that "super pushbutton" operation is in store for the railroads.

"The electronic advances on the road . . . and in the offices . . . would be joined

in what would be the most spectacular development in railroading history," he predicted.

"It does not seem to me improbable that such a super pushbutton operation may someday control fleets of fast freights and passenger trains, as well as intricate office, yard and terminal operations."

He anticipates linkage of "the electronic brains on the business side of a railroad with the electronic brains of the operating forces into a master computer which would record . . . and control . . . from one vantage point . . . all of the processes from receipt of a car of freight on a railroad until delivery at its destination."

BLE'S BROWN: FAIR TREATMENT BEGETS LABOR SUPPORT . . .

The railroads "are in desperate need of more and closer cooperation between their employees and management in order that there will be genuine desire to pursue certain legislative goals. . . In return for fair treatment on the job, railroad em-

ployees should be prepared to support a number of very necessary legislative changes," Guy L. Brown, Brotherhood of Locomotive Engineers chieftain told a Chesapeake & Ohio better service conference at Richmond September 17.

He said that many laws of transport regulation are obsolete but, because of trucker resistance, several reform bills were stymied in the last session of Congress.

"Railroad employees have a definite in-

terest and stake in" a program to tell the public about the competitive shackles hampering the railroads, the labor leader said. He said a labor-management team could by cooperative effort get this story

across on all government levels. "After all," he added, "if railroads are not prosperous or if there is no money in the till, there cannot be much hope for higher pay or improved conditions."

NASH: PAUL REVERE TACTICS ARE NEEDED . . .

"Only as we have a national transportation policy which recognizes justice to all and favor to none can we hope to preserve our system of competitive free enterprise," New York Central Vice-President John F. Nash told a Springfield,

Mass., businessmen's group September 16.

"What we need today is an army of modern Paul Reveres to warn all America of approaching economic adversity unless present transport policies are changed and changed quickly."

NEWELL: CRUSADE FOR A FAIR DEAL . . .

There's little wrong with the railroad industry that additional earning capacity won't correct, but the industry must achieve public understanding of its problems. The public, Pennsylvania Vice-President James P. Newell stated September 17, must be persuaded that solution of these problems is in the public interest.

He told the Allied Railway Supply Association and the Joint Coordinated Railroad Associations that the nation's antici-

pated growth needs a railroad industry that can grow apace.

He cited the so-called Symes Plan for a government-financed car pool as a step to meet one of the railroads' growth problems—their inability to buy enough equipment to meet peak demands. He noted that this proposal is "not fully understood by most people" but added that "you'll hear more about this in the next few months."

Watching Washington *with Walter Taft*

- **GENERAL TAX REVISION** hearings are scheduled to begin next January 7 before the House Ways and Means Committee. Important proposals aimed at more equitable taxation will be made by the railroad industry.

- **TOLL ROADS** in a "free" federal superhighway system don't seem quite "according to Hoyle," so it's likely congressional action will be sought to make these links in the interstate network toll-free. Here's the rub: To do this, the federal government (or someone) would have to pay off bondholder obligations. How much money is involved and where it would come from are nice questions—to which the taxpayer no doubt will be giving the answer.

- **EIGHT TRUCKERS** of salt, and five salt companies, will be investigated by the ICC to determine whether they violated the Interstate Commerce Act by "engaging in the transportation of property in interstate or foreign commerce for compensation as a common or contract carrier" without commission authority.

- **TO BE DETERMINED** is whether the truckers and salt companies participated in so-called buy-and-sell activities. The practice involves transportation by an unauthorized carrier, acting under the guise of exempt private carriage, of goods it purportedly, but does not actually, own.

- **LEGISLATION AFFECTING** the railroads will be discussed in a series of nine AAR regional meetings to be held throughout the country. The meetings will scrutinize measures that may be considered by Congress when it convenes next January 7.

- **OTHER SUBJECTS** at the meetings will be the possibility of obtaining relief from present statutory restrictions upon the use by railroads of other forms of transportation; competitive rate-making (the three "shall-nots") bills; and legislation aimed at limiting the agricultural commodity exemption in Part II of the Interstate Commerce Act.

PRR 'Feeler Car' Checks Western Pacific Routes

The Western Pacific is conducting its triennial check of interior clearances, using a "feeler car" loaned by the Pennsylvania. The car will cover the entire Oakland-Salt Lake City main line, with a side trip over WP's Keddie-Almanor "Inside Gateway" route. Every tunnel and most bridges will be checked.

The feeler car, last operated over the WP in May, 1954, uses 126 measuring instruments, divided into four groups, extending from the side of the car and in a semi-circle above it, to provide clearance templates.

15 Railroads Receive NSC Activities Award

Fifteen railroads in the United States and Canada have been granted the 1957 Public Safety Activities Award of the National Safety Council. The award is designed to recognize and stimulate activities which the Council views as significant, constructive developments in safety promotion and accident prevention. Judging is on a non-competitive basis.

Winners of the current awards are the Atlantic Coast Line, Baltimore & Ohio, Burlington, Canadian Pacific, Chicago & Eastern Illinois, Delaware & Hudson, Denver & Rio Grande Western, Frisco, Milwaukee, New York Central, Reading, Santa Fe, Southern Pacific, Texas & Pacific and Union Pacific.



Flexible Float in Germany

West German railroads have developed an amphibian float train in which floating tubes or containers can be used as part of flexible raft coupled to power and steering units fore and aft—then hoisted directly onto railroad car trucks for land movement. Transport economies in coal, coke and ore movements are anticipated. Containers are built of welded steel sheets, are 39 feet long and weigh 15 tons with 51 ton capacity.



KING-SIZE BULK of ACF car on Canadian Pacific is dramatized here.

"HOT DOG"—"JUMBO"—"KANIGEN-R"

New Tank Cars to Do Old Jobs Better

New developments in tank car construction revealed by car builders promise to give railroads added flexibility in moving petroleum and other liquid or gaseous products.

Members of the National Petroleum Association meeting at Atlantic City this month heard, among others, reports on these innovations in tank car construction:

- From Union Tank Car Company, word on its "HD" (Hot Dog) design in which the underframe and dome have been eliminated and side running boards are probably on the way out.

- From American Car & Foundry a prophecy of early large-scale production of maximum-load tank cars for high-pressure commodities, an outgrowth of advances in king-size tank car production.

- From General American Transportation Corporation, announcement of a new process for coating tank car interiors with nickel.

Union Tank Car's innovation is a product of three years of testing and research at the Association of American Railroads laboratory at Chicago.

This basic car, with minor modifications, can be used where four separate car classifications have till now been required. It can do the jobs of the general service car, acid car, insulated car and low pressure car.

Some 200 of the "Hot Dogs" are now in service. Their key feature may be elimination of the underframe through making the tank an inherent part of the car structure. It is mounted, through a draft sill, directly on the trucks, thus serving both as a structural member and as a container.

Elimination of the dome has strengthened the car in one of its otherwise weak areas without affecting the "outage" required for expansion. ICC approval is sought for eliminating the running boards.

Details of the new car were outlined at Atlantic City by E. A. Locke, Jr., UTC president. He commented that the car "weighs less, costs less, carries more, has greater versatility and is stronger, safer and more efficient to operate, maintain, load and unload, and inspect" than other cars without its features.

J. P. Krumech, vice-president, sales, Shippers' Car Line division of ACF Industries, told the oil industry representatives that king-size or jumbo high-pressure tank cars "represent the coming decade's major potential for tank car builders" and "soon will be contributing their efficiencies to the growth of our expanding economy."

Maximum-load cars "are here to stay because they are economic," Mr. Krumech stated—comparing the cost of a 10,000 gallon tank car (\$11,000) with that of a 19,000 gallon king-size car (\$14,000).

"You get 90% more lading capacity for only 27% more cost," he pointed out, adding that upkeep and handling costs were also reduced by lowering the number of

cars required for equivalent service.

High-pressure loadings in the jumbo cars, he went on, "are merely a matter of education and time" with expectations they will be in production in two or three years.

"Kanigen-R" is GATC's registered trademark for its process of nickel-plating tank car interiors. A uniform, hard, corrosion-resistant coating is applied by means of a chemical bath without use of electricity.

The coating has been found suitable for transport of most materials where nickel itself is not objectionable. Cars with Kanigen-R are reported to be operating successfully with loads of tetra-ethyl-lead, ethylene oxide, caustic soda and other products.

GATC anticipates that the coating will last the life of the car. The most complicated shapes can be coated with no substantial variation in thickness; the coating is reported harder than electroplated nickel with higher corrosion resistance; it is non-porous.



NO UNDERFRAME, no dome are features of "HD" car.



LARGEST compressed gas car yet, the 14,000 gal non-insulated tank car built for Phillips by General American Transportation Corporation. This is the largest capacity tank that can be placed on 50-ton trucks.



WHITE - PAINTED non-insulated tank car built for Phillips by American Car & Foundry has 11,700 gal capacity. End hand holds have been replaced with standing grab irons secured to the four corners of the runways.



New look in high pressure tank cars . . .

They Go Without Jackets Now

Storage tanks and tank trucks for liquefied petroleum gas have for years functioned without insulation, but ICC specifications have required LP tank cars to be insulated with four inches of glass fiber or cork under a steel shell. Now Phillips Petroleum Company tests have proved such insulation superfluous—and ICC specifications have been revised accordingly.

Of the 23,000 high-pressure, single-unit tank cars in liquefied petroleum gas service, a large number are operated by Phillips Petroleum Company. For much of the LP gas sold, transportation costs are greater than production costs. With all costs spiraling upward, Phillips began looking for ways of cutting the cost of the transportation package.

Capital investment in new tank cars is high and getting higher with increases in steel and labor charges. Since Phillips needed a sizable order of new cars, an obvious point of attack was in tank car design itself. "Why is tank car insulation necessary?" the Phillips engineering department was asked. "There are hundreds of thousands of tank trucks and storage containers for liquefied petroleum gas that do not have insulation and never have had it."

The only answer to the question was that ICC specifications required it. This insulation served to control the pressure in the tank, which is directly related to

the inside temperature. Insulation prevents extremes of pressure within the car, and consequently averts serious pressure changes.

Heat Tests

Phillips engineers had been convinced for years that uninsulated tank cars would be completely adequate and safe for either liquefied petroleum gas or anhydrous ammonia (the other major product carried in cars of this class). Before the lower cost, non-insulated cars could be specified on new car orders, though, it was necessary for the engineers to prove their theory. On a spur track of the Panhandle & Santa Fe at Borger, Tex., Phillips test personnel began full-scale tests to find out exactly what would happen to internal pressure in the hottest summer sun once the insulation jacket had been removed.

Borger was chosen for the location because it has consistently high daily temperatures, a high percentage of clear days

and intense sun radiation. It also has a north-south spur, important for presenting the maximum car surface to the sun. A stationary test was chosen, because wind, like shadows and clouds, lowers temperatures and retards pressure build-up. The test site at Borger represents as severe service conditions as any cars in this service are likely ever to meet.

Two tank cars were used for the test: a conventional ICC-105A300W (11,070 gallons water capacity) insulated car and an ICC-105A400W (10,518 gallons water capacity) car with the insulation and jacket removed. For the test, both cars were filled with anhydrous ammonia rather than propane, because at the temperatures expected, anhydrous ammonia pressures are even higher than propane.

To collect all possible data, special pressure and temperature measuring devices were installed in both cars. An adapter for instruments took the place of the safety valve on the test car, with the safety valve remounted on top of the



adapter. A device to measure liquid level was mounted in the adapter, as were eight thermocouples spaced down through the tank at one-foot vertical intervals.

Additional thermocouples were installed to measure temperature in the insulated control car. Other thermocouples recorded the ambient temperature in the shade of the instrument house. A pyrheliometer was installed to measure the intensity of the sun's radiation. These instruments were connected to indicator recorders in the instrument house, and data were recorded 24 hours a day. Rain gages measured daily precipitation at the test track. Wind direction, velocity and other weather data were obtained from Borger airport.

The test car was filled with anhydrous ammonia to a density of 55.3 per cent. The insulated car was filled to the usual filling density (57 per cent) with ammonia from the same source. In filling the test

car from tank trucks a small amount of air present in the test car was not eliminated. This created a possibility of error in the results, but on the safe side, since the air present tended to make the test conditions more severe than actual conditions. The 13 per cent air in the tank was found to cause an increase of approximately 10 per cent in the recorded pressures over what was anticipated. This was taken into account in evaluating the results.

Color Tests

The test car was painted successively white, then gray, then black while the control car remained unchanged. Each series of tests was continued for each of the colors until the test figures leveled out, indicating equilibrium conditions. Reflectivity measurements were taken for each

series of tests, using a Photovolt reflectance meter with a green tri-stimulus filter.

A series of light-color paints was used for the test because the pressure of a confined gas depends primarily on the temperature, and, in the case of a tank car, the internal temperature is largely dependent on the amount of radiant energy absorbed from the sun. Anything that limits this absorption—as light-color, high-reflectivity paint does—is capable of limiting the pressure.

As the graphs plotted from test data show, (see p. 14) this theory works. One chart shows relationship between maximum ambient temperatures and maximum pressures in the test car. The temperature-pressure data recorded were extrapolated to obtain pressures to be expected up to 130 F ambient temperature. The actual maximum ambient temperatures and pressures recorded were 105 deg F, 216 psi for the white tank, 109 deg, 265 psi for the gray and 108 deg, 295 psi for the black.

The other chart shows the relationship between paint reflectivity and the maximum tank car pressures for the three arbitrary maximum ambient temperatures. The solid lines are based on the results obtained with the 13 per cent air actually in the tank during the tests; the dashed lines are corrected to show the results that would have been obtained if the air had not been present.

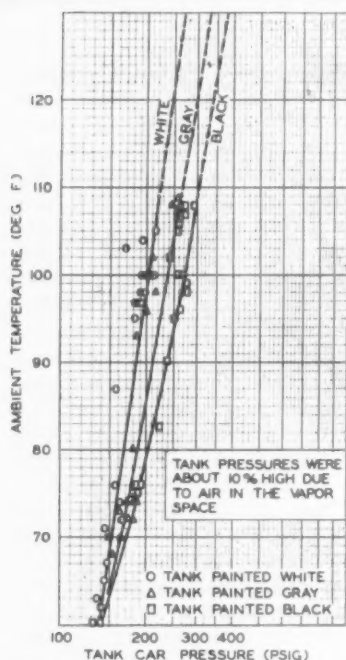
The data in the second chart were obtained by plotting the tank pressures from the pressure-ambient temperature chart against the known reflectives of the paint. From these curves, if you know the maximum ambient temperature to be met and the desired maximum tank pressure, you can read the paint reflectivity needed to keep tank pressures within required

Comparison of Principal Dimensions of New Non-Insulated Cars with Conventional Insulated Cars

Classification	ICC-112A400W		ICC-105A300W
Builder	ACF	GATX	ACF
Capacity, gal water	11,700	14,600	11,050
Tank:			
Inside diameter, ft-in.	7-10½	7-10½	7-6¾
Length, ft-in.	33-6¾	41-5½	34-3½
Extreme height from top of rail, ft-in.	14-8	14-8¼	14-8½
Steel, ASTM specification	A-212	A-212	A-285 Grade C
	Grade B	Grade B	
Steel, tensile strength	70,000	70,000	55,000
Underframe:			
Length over strikers, ft-in.	35-11½	44-8	37-5½
Truck center, ft-in.	25-0	33-8½	
Length over runways, ft-in.	35-7¼	43-10½	
Width over runways, ft-in.	10-0	10-1½	

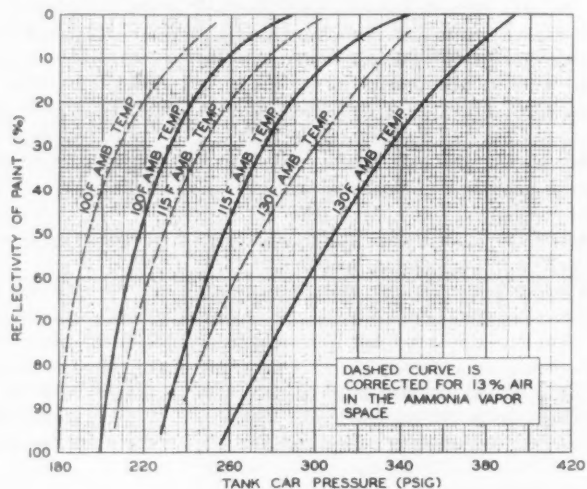


TEST SITE of Phillips Petroleum Company at Borger, Tex. The conventional, insulated car is on the left, the test car with the insulation removed in the center (note the adapter for instruments in the dome), and the instrument house on the right.



TANK PRESSURE vs. ambient temperature for test car painted white, gray and black.

TANK CAR PRESSURE vs. reflectivity of the paint for three maximum ambient temperatures. The solid curves show the actual results of the tests; the dashed curves have been corrected to eliminate the influence of air actually present in the test car.



limits. For example, if it is required to keep tank pressure below 300 psi at a maximum ambient temperature of 115 deg, the paint must have at least 13 per cent reflectivity.

The data from the curves indicates the following relationships for each color:

Color	Paint Reflectivity	Maximum Pressure at 115 F Ambient Temperature	Maximum Pressure at 130 F Ambient Temperature
White	84%	235 psi	270 psi
Gray	27%	280 psi	340 psi
Black	5%	320 psi	380 psi

The question was considered whether a light-color paint would remain sufficiently reflective as it aged. A number of white storage tanks in the Borger area have been in use for several years. During this time carbon black and channel black

plants have operated in the area. These storage tanks have not darkened appreciably.

Furthermore, the pressure vs. reflectivity chart shows that for a maximum pressure of 300 psi to be reached, even in 115-deg weather, the reflectivity would have to fall to 13 per cent.

This figure represents an extremely dirty white paint.

The combination of circumstances necessary to raise pressure enough to activate the safety valve would be almost impossible in practice. Based on the facts brought out by the test, the conclusion of the Phillips engineering department was that uninsulated tank cars with a relief valve setting of 300 psi could be painted any light color and be safely operated in

LP gas and anhydrous ammonia service. This was based on the demonstration that light-color reflective paints can permanently reduce the amount of radiation absorbed by pressure tank cars.

The report recommending that light-color non-insulated tankers be approved for LP gas and anhydrous ammonia service was presented to the Tank Car Committee of the Manufacturing Chemists' Association, Compressed Gas Association and the American Petroleum Institute (Railway Equipment Committee of the Central Committee on Railway Transportation). The recommendation for non-insulated tankers was endorsed by all of these groups. The report was also presented to the Natural Gasoline Association (Continued on page 36)

Letters from Readers

"Time Saver" Applauded

CHICAGO

TO THE EDITOR:

... I have been intending to drop you a note to tell you how much I personally appreciate your new "time saver" format.

A quick count indicates that I try to wade through four daily newspapers, seven weekly magazines, six monthly magazines and about fifteen trade magazines, either weekly or monthly.

If all publishers were as considerate of this reader as Simmons-Boardman, I would be better informed and in less time!

Believe me, I appreciate the good job your staff is doing.

HUGH W. FOSTER

Advertising Manager

Pullman-Standard Car Manufacturing Company

CHICAGO

TO THE EDITOR:

Railway Age has conspicuously livened its pace and format. All this is to the good. It is pleasurable to read such an aggressive magazine.

G. MURRAY CAMPBELL

Vice-President, Executive Representative
Baltimore & Ohio

MINNEAPOLIS

TO THE EDITOR:

A few days ago a post card inquiry came to me from Railway Age, asking my opinion about changes made in the magazine.

I think the improvements you have made in Railway Age in the past year both of format and contents have been nothing short of remarkable. One of the best illustrations of what I mean is to be found in the July 29 issue, which presents the interview with George Harrison of the Clerks on automation. This is an extremely timely subject to all of us and the interview technique of presenting it makes it doubly effective.

J. R. SULLIVAN

Assistant to President
Minneapolis & St. Louis

Passenger Business Is Up

NORFOLK, VA.

TO THE EDITOR:

Your (recent) editorial "Getting Passenger Business to Pay" on the Action Page of Railway Age again rings a bell and I think your thoughts are excellent. Passenger business on the Seaboard continues to show increases—we are about 7% ahead of last year when we also had an increase.

J. R. GETTY

General Passenger Traffic Manager
Seaboard Air Line

Here's How Free Daylight Is Saving One Company

\$58,023⁰⁰

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YOUR FREE COPY

This lighting cost analysis by an independent consulting engineer reveals the money actually being saved in one metal building through the use of Corrugulux daylighting panels in place of artificial lighting. Comparative costs of both methods are projected over a ten-year period, indicating a savings with Corrugulux, of over \$58,000.00.

Similar savings are possible in your construction picture.

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L-O-F GLASS FIBERS COMPANY

Dept. I-1 • P. O. Box 20026, Houston 25, Texas



Jamar-Olmen Building
Houston, Texas



1. **CALLER UNLOADING** freight reads off names and addresses of consignees to . . .

2. **CHECKER IN OFFICE** who tells the caller the spot numbers to mark on the freight.



3 Ways to a Better Freighthouse:

The Wabash installed a centralized checking system so the checkers now remain in a central office and use a loudspeaker communications system to talk to the men unloading freight from cars and truck trailers. Talk-back speakers and a paging speaker system were also installed.

To get more out of an existing freight-house at East St. Louis, Ill., the Wabash recently installed three integrated communications systems: i.e., a centralized checking system; paging speakers; and talk-back speakers. A foreman at the nerve center has a console with lines going to all three systems, because he has supervision of the whole LCL freight checking operation.

Under the old system of handling LCL freight, each crew included a checker, a caller and a picker, working one car. Now checkers are located in the office, and work with several crews of pickers and callers via loudspeaker communications.

The men at the docks and in the cars use portable loudspeakers for calling the checkers. The foreman supervises the operation and makes the circuit connections on his switchboard.

Freight is transferred between freight cars, between trailer trucks and cars, and between trailer trucks. The house is worked two shifts, from 1 a.m. to 7 p.m., and in a typical day will handle 1,250 tons of freight. Such a day will see 100 freight cars unloaded and 145 cars loaded, with 20 trailers unloaded and 15 loaded.

Capacity of the house is 211 freight cars and 90 trailer trucks. Normally the house is switched at 7 p.m., but an engine works the house during the day, so that rush cars can be pulled at any time to make outgoing trains or connections.

When the Caller Begins Work

When the caller plugs his speaker cord into one of the platform outlets, a light and chime are actuated on the foreman's

switchboard. The foreman answers, putting a cord into the circuit jack, and operates a press-to-talk key.

"What car are you working?" says the foreman.

"Car 14 on No. 3 track," replies the caller. The foreman then connects the caller's circuit through to one of the checkers (using the switchboard cords). The foreman, using his console, calls the checker; "I've given you Smith at spot 141 on line 3." When the foreman made the connection on his switchboard between the caller's line and the checker's, a lamp was lighted on line 3 on the checker's console, informing him that he was then connected to the portable speaker that caller Smith was using in the freight car. The checker pulls down his line 3 key and presses his footswitch to talk to caller Smith.

The caller reads off names and addresses



FOREMAN has communications at his fingertips: checking, paging and talk-backs.

◀ **3 TOW CONVEYOR** hauls platform trucks of freight to outbound cars for loading.

...1. How the Wabash Did It

on packages and his checker tells him spot numbers to mark on the freight. After signing off, the caller stows the freight on platform trucks, and puts the trucks on the chain conveyor line where they are towed to another dock for loading into cars.

Later, when the caller wants to call his checker about the next group of packages for marking, he presses a pushbutton on his portable speaker. This causes the line 3 lamp to blink each time he presses the button, which tells the checker he is being called.

Paging System Helps, Too

Twenty-eight paging speakers are spaced about 120 ft apart over the four platforms. The foreman often uses this system to page someone on the platform, or to give instruction concerning the changing of spot numbers. This system is also used when extra platform trucks or a forklift truck are wanted at a particular spot.

Talk-back speakers are also on columns on the platforms which serve as answer-backs to the paging speaker system.

Whenever the foreman desires to talk to

a man on the dock, he pages him. To answer, the man goes to the nearest talk-back speaker and presses a button, which actuates a light and chime on the foreman's console. He pulls down the key associated with the lighted lamp to be connected to the talk-back speaker on the platform. He uses a press-to-talk footswitch to talk to the man.

Reel-type Portable Speakers

The 8-watt portable speakers are mounted in cast aluminum reels. Each speaker has a 60 ft extension cord, which consists of three conductors, No. 16 stranded copper wire in a neoprene cover. The outlet wires are terminated in Pyle-National junction boxes. From each box, hangs a 10 ft length of Joy 3-conductor drop cord (same as the speaker extension cord).

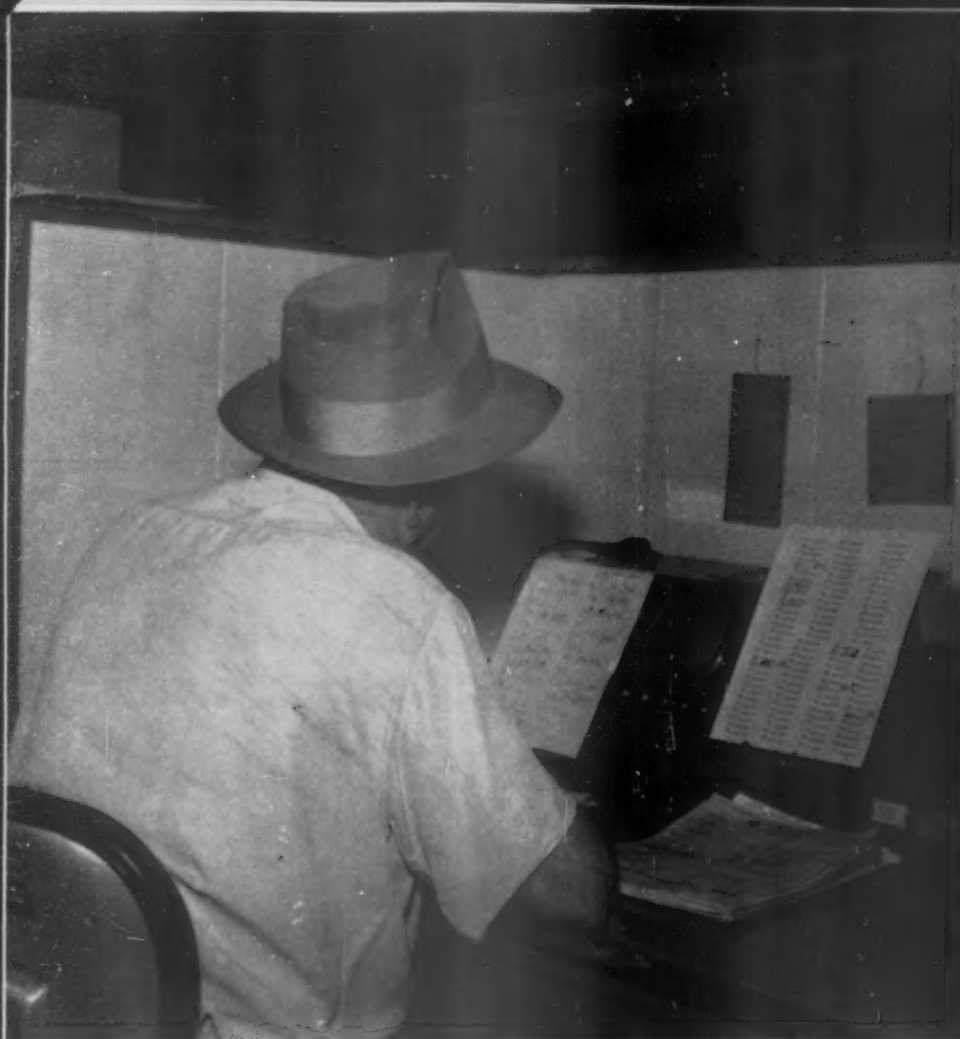
The couplers (one on the end of the drop wire and one on the end of the portable speaker extension cord) have a

suction fit and are spring loaded for good conductivity. Another advantage of this coupling is that if a freight car is pulled away, or a man yanks on the extension cord, it will part at the coupling with no damage to the speaker extension cord or the drop cord.

Another feature of the drop cord is that an 18 in. section of No. 43 bronze Navy chain is attached to the cord and the roof truss overhead. Alongside the chain is an ordinary screen door spring which keeps the drop cord up out of the way of fork lift trucks and men's heads. When a man reaches up and pulls the drop cord down, he is pulling against the screen door spring (up to 18 in.). The chain limits his pull to 18 in. and thus prevents him from pulling the drop cord out of the junction box.

Equipment for this installation was furnished by R. W. Neill Company, Chicago. Work was under the jurisdiction of G. A. Rodger, superintendent signals and communications of the Wabash.

What the MP and CNJ did ▶



◀ **CHECKER WORKS** in rotation with 3 men (below) unloading freight. He has waybills for several cars at his desk so he can quickly give spot numbers to the unloaders. Conversation is via loudspeaker communications.



3 Ways to Get a Better Freighthouse:

2. How the MP Does It

Thirty-five men now do work which formerly required 78. They unload, check and load LCL freight at the Missouri Pacific's Miller Street freight house in St. Louis.

The manpower slash was made possible by installation of a loudspeaker communications system whereby the men working in the freight cars and truck trailers can talk to the checkers in their centrally located office.

The old way of checking freight required men on a 1-on-1 ratio; that is, a checker worked at the car with the caller, telling him the spot numbers to mark on the packages of freight. When he finished one car, the checker went to the office for another car's waybills. This system required a checker for each caller working a car.

Now the checkers stay in an office. Each has a communications console with lines going to a foreman's switchboard, thence

to outlets along the freight house platforms. The caller working at the car plugs a portable loudspeaker into the nearest outlet, giving him direct connection to the checker.

When he has several packages of freight address-side up, he calls his checker and reads off the names and addresses of the consignees. The checker gives him spot numbers to mark on the packages.

Efficiency is Greater

Since this takes only a few minutes, the checker can then work with another caller while the first one gets more packages ready. As a result of this loudspeaker usage, a single checker can now work with three to five callers. Thus the working ratio is now 3-to-1.

Not only is LCL handled with less men than formerly, but it is handled with great-

er dispatch. The inherent flexibility of loudspeaker communications is such that when minor peaks of LCL occur during rush seasons, the same manpower can handle the load, whereas formerly extra men had to be hired temporarily.

Not only does this house handle a large volume of LCL freight for St. Louis and vicinity, and originate such freight in quantity; it is also a break-bulk point on the MP system.

In other words, this St. Louis freight house is a redistribution point for the railroad, in that loaded cars may be opened here and the freight reassigned to other cars. All of which, in order to provide good service, requires fast handling of freight with as little delay as possible.

H. C. Macomber, superintendent of communications, directed installation work, Electronic Communication Equipment Co. furnishing the equipment.

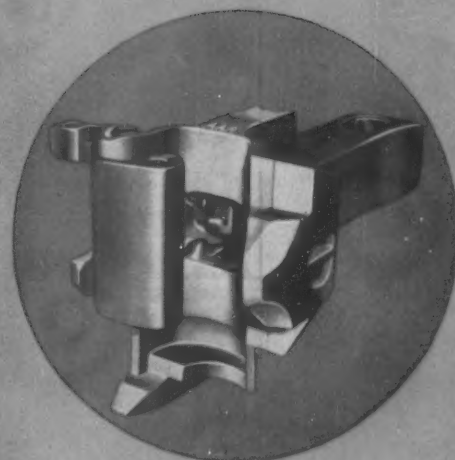
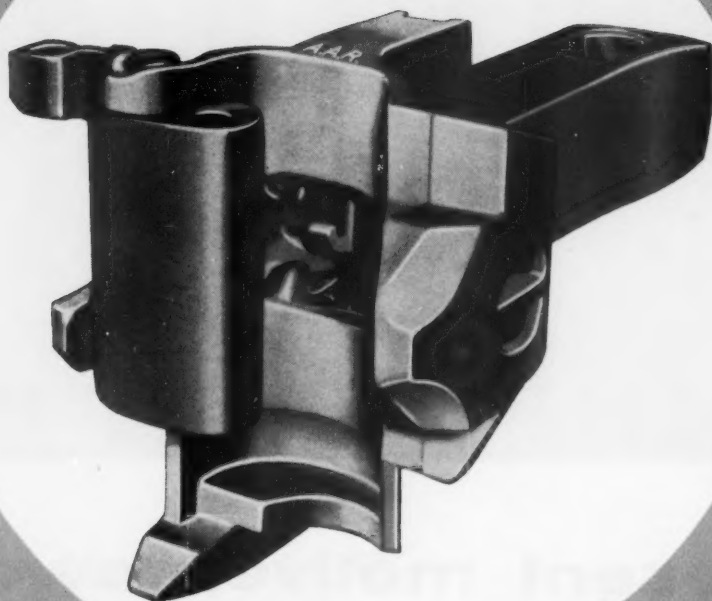
What the CNJ did see p.22 ▶

There's Improved Railroading with

National Specialties

Example:

type **F** couplers
for freight service



The Type F coupler was developed for freight service after the proven ability of the highly successful Type H Tightlock coupler in passenger service. 22 per cent stronger than the Type E and with interlocking wings for alignment, the Type F is proving its many advantages in service today. The free slack between knuckles has been reduced to about 50 per cent of that in the E coupler. Another safety factor is the centrally located shelf on the lower front face which serves to support a conventional type coupler in event of a pull-out.

AA-5871



COUPLERS
YOKES
DRAFT GEARS
FREIGHT TRUCKS
JOURNAL BOXES

NATIONAL MALLEABLE AND STEEL CASTINGS COMPANY

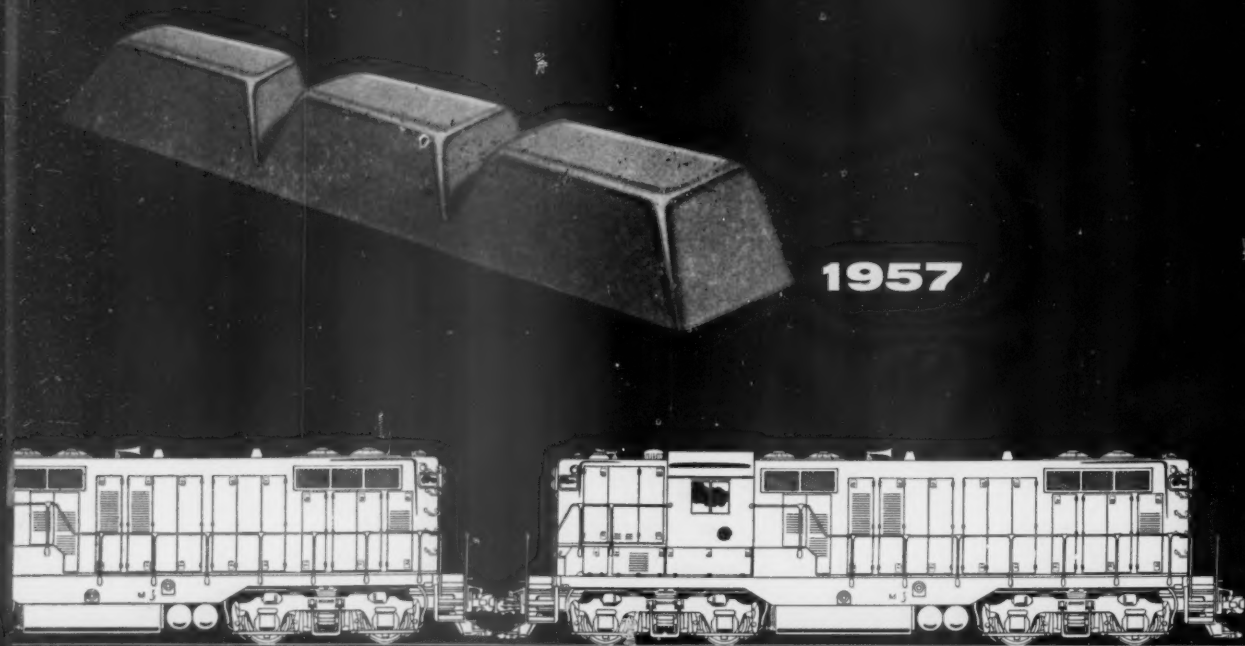
Established 1868

Railway Division Headquarters
Cleveland 6, Ohio

International Division Headquarters
Cleveland 8, Ohio

Canadian Subsidiary
National Malleable & Steel Castings Company
of Canada, Ltd.
Toronto 1, Ontario

Forecast: Aluminum Consumption



Will your present motive power

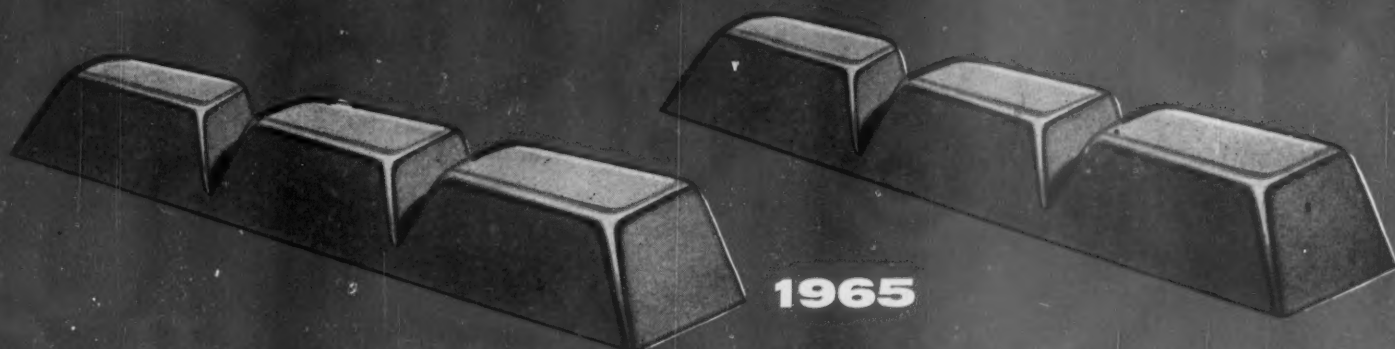
Now is the time to plan for increased traffic, not only for aluminum and aluminum products, but for steel, chemicals, foodstuffs and nearly all other basic products, most of which will exert comparable demands on rail transportation in the growth years ahead.

Electro-Motive is showing its faith in this growth potential through a forty-two per cent expansion of manufacturing facilities. We are now in a better position than ever to plan with you a realistic program of motive-power acquisition and modernization that will give you power when you need it.

Through a planned, step-by-step program you will be able to match power to growth conditions as they occur, thus avoid delays costly both in revenue and goodwill.

And Electro-Motive offers the opportunity of anticipating this increasing traffic

*to double by 1965**



do the job ?

with fast, dependable, economical motive power—either from our constantly improving line of General Motors locomotives, or through our modernization facilities that make new locomotives from old.



Aluminum producers expect the use of aluminum in such things as buildings, freight cars, automobiles, packages, cans and other new products will double consumption in the United States by 1965.



ELECTRO-MOTIVE DIVISION
GENERAL MOTORS

La Grange, Illinois • Home of the Diesel locomotive
In Canada: General Motors Diesel, Ltd., London, Ontario



3 Ways to Get a Better Freighthouse:

3. Jersey Central Expands Facilities

Five freight consolidating companies are now centered at the road's large freight station at Elizabeth, N.J. LCL-handling operations formerly carried on at 18 widely scattered locations have been concentrated here.

Modern facilities for two additional freight forwarding companies have been provided at the Jersey Central's Metropolitan freight station at Elizabeth, N. J.

This brings to five the number of such companies centered at this station. The central part of this large facility was built in 1951 to house LCL freight transfer and handling operations previously carried on at widely scattered locations in and around Newark, N. J. It is adjacent to the road's Elizabethport freight classifica-

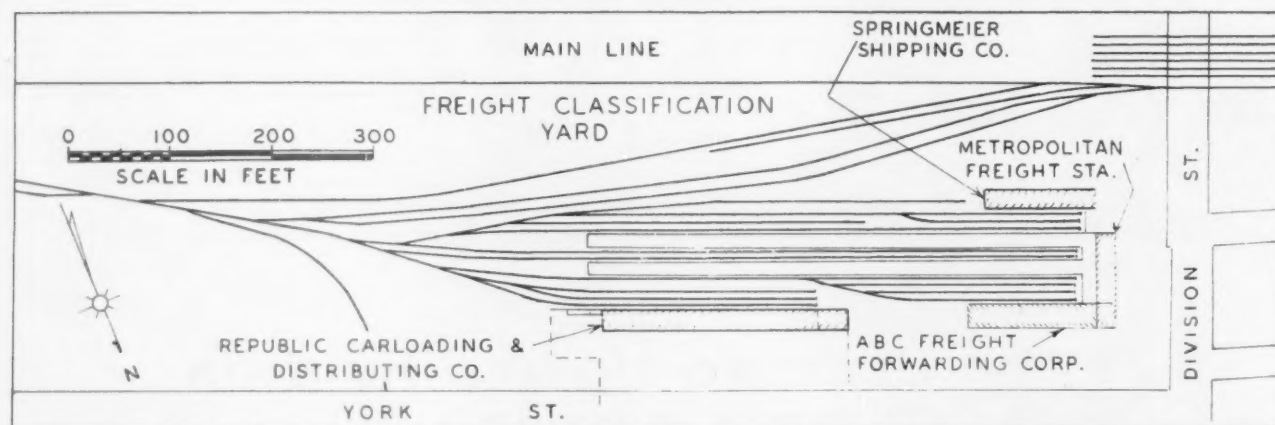
tion yard and also to the Elizabeth Central District, a 250-acre industrial community sponsored by the Jersey Central.

Large—and Still Growing

For transfer operations the Metropolitan Freight Station has two 1,000-ft platforms connected at the west end by a cross platform. At this end, which fronts on Division street, there is a two-story headhouse building. As originally con-

structed the freight station included a warehouse, along the north side at the east end, for the use of the ABC Freight Forwarding Corporation. Other freight forwarders using the facility prior to the recent additions included Blue Ribbon Express, Inc., and Midland Freight Forwarding Company.

To these have now been added Republic Carloading & Distributing Co., and the Springmeier Shipping Company. Repub-



JERSEY CENTRAL'S metropolitan freight station, built in 1951, now handles LCL business formerly carried on at 18 locations.

PS-1 PS-2 PS-3 PS-4 PS-5



PS-1 box car, PS-2 covered hopper, PS-3 open hopper, PS-4 flat car, PS-5 gondola

standardized freight cars

from the experience of the world's largest carbuilder

More than eleven years ago, Pullman-Standard made a long-considered departure from traditional carbuilding concepts of custom design and construction, by introducing the first standardized freight car, the PS-1 Box Car. Pullman-Standard drew on its 80 years of carbuilding experience to conceive and engineer a car design that would serve equally well on all parts of the Great American Railway System. Modern mass production techniques, impossible to apply to custom-produced units, were developed for the production of this revolutionary car. These same economical, high-standard methods are now used by Pullman-Standard in the building of the complete line of standardized freight cars ... the PS-2 Covered Hopper, PS-3 Open

Hopper, PS-4 Flat Car and now, the new PS-5 Gondola.

The new PS-5 Gondola is the result of over eight years of exhaustive design and engineering effort. The Pullman-Standard concept of *flexible* standardization allows application of the economies and quality controls of mass production while providing sufficient design versatility to meet the varied use requirements of owners and shippers. Two standard PS-5 lengths are available with either fixed or drop ends and with a choice of floors.

Your nearest Pullman-Standard office will be pleased to supply you with full information on the complete line of P-S Standardized Freight Cars.

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Canadian National
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Chgo., St. Paul, Minn'pls & Omaha
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Delaware & Hudson
Delaware, Lackawanna & West'n
Denver & Rio Grande Western
Detroit, Toledo & Ironton
Duluth, Messabi & Iron Range
Duluth, So. Shore & Atlantic
Elgin, Joliet & Eastern
Erie
Escanaba & Lake Superior
Ferrocarril Del Pacifico
Florida East Coast
Fl. Dodge, Des Moines & South'n
General American Trans.
Georgia Railroad
Western Railway of Alabama
Grand Trunk Western
Great Northern
Green Bay & Western
Gulf, Mobile & Ohio
Illinois Central
Interlake Iron Co.

J. C. Corrigan Co.
Kansas City Southern
Lake Superior & Ishpeming
Lancaster & Chester
Lehigh Valley
Lehigh & New England
La Salle & Bureau County
Louisville & Nashville
Maine Central
Minn'pls, Northfield & South'n
Minneapolis & St. Louis
Mississippi Central
Missouri-Kansas-Texas
Monon
National Sugar Refining
Nashville, Chattanooga & St. Louis
New Haven
New York Central
N. Y., Susquehanna & Western
Nickel Plate
Norfolk & Western
North American Car Co.
Northern Pacific
Oliver Mining Co.
Pennsylvania
Phila. Qtz. of Cal.
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Richmond, Fred'bg & Potomac
Rutland Ry. Co.
Santos & Jundiai
St. Louis-San Francisco
St. Louis Southwestern
Savannah & Atlanta
Soo Line
Seaboard Air Line
Southern Pacific
Southern Railway
Tennessee Central
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Toledo, Peoria & Western
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U. S. War Department
Utah Railway
Virginian
Wabash
Western Maryland
Western Pacific

Now, 27 leading railroads economy with Reflective T



MILWAUKEE ROAD, switch target

60-40

TEXAS & NEW ORLEANS, speed limit sign

R

NEW YORK CENTRAL, resume speed sign



UNION PACIFIC, one mile to yard limit



TEXAS & PACIFIC, slow speed sign



SEABOARD AIRLINE, speed limit



SOUTHERN PACIFIC, flanger sign



MISSOURI PACIFIC, speed limit at spring switch

25-15

SANTA FE, permanent slow sign

RELAY

BALTIMORE & OHIO, station sign



CHICAGO & NORTH WESTERN, crossbuck

STOP

SOUTHERN, stop sign



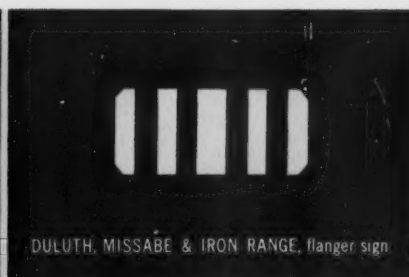
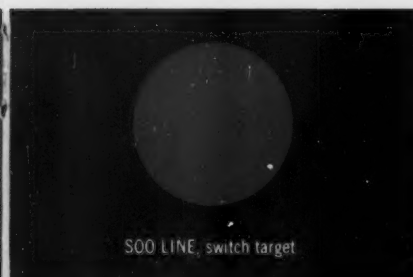
PENNSYLVANIA, whistle sign



ERIE, resume speed sign

Safety and economy are twin-benefits that the signs pictured give to these modern roads. Safety, because Reflective Train Control signs can be seen at night in any kind of weather. Economy, because this sign system *ends* costly sign painting and field maintenance . . . can be mass-produced in one central shop. Why don't *you* find out about RTC now? Ask any of the roads shown, or write for details to: 3M Company, Dept. FQ-9237, St. Paul 6, Minnesota.

oads promote safety and ve Train Control Systems



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AMERICAN TRUCK CRANE SPEEDS GN YARD, MAINTENANCE-OF-WAY JOBS

Working in the yards and out along the main line, Great Northern Railway's new American 100 Series Truck Crane demonstrates its unusual flexibility on a multitude of jobs. In the terminal area at Seattle, Washington, the American is removing and re-laying track, pulling out and loading old concrete foundations for a new parking area.

On the GN main line between Edmonds and Ballard, Washington, trackage was adjusted to make a runway for the American Truck Crane. The convenience of driving and working the crane alongside the track without interfering with main line traffic is especially useful in the area between Seattle and Everett where mud slides present a problem during the rainy season.

Great Northern's versatile American performs many jobs that used to require a complete work train. It's equipped for pile driving, clamshell, crane and magnet work. Highly efficient, weight conserving design means the crane can move right onto highways and travel to the next job without time consuming weight stripping. The American sets up for work fast—the power-raised high

gantry locks in position easily. Simple, safe pin connections speed boom section assembly!

Power and balance of the 12½ and 15 ton capacity 100 Series is graphically proven by their ability to lift a total of 100 feet of stick *right from the ground without help!* These new cranes, designed and built by the manufacturer of American Diesel and Diesel-Electric* Locomotive Cranes, offer a low cost solution to yard and right-of-way construction maintenance.

Write for descriptive catalogs on a complete line of off-track crawler and truck cranes in capacities starting at ½-yard, 12½ tons!

**Registered Trademark*

AMERICAN HOIST
and Derrick Company

1882-1957

75 years of service

St. Paul 7, Minnesota

(Continued from page 22)

lic occupies a new building on the north side of the existing freight station, and Springmeier is housed in a new building on the south side with a platform connecting with the existing cross platforms.

The railroad has now centered at the Metropolitan Freight Station freight-handling operations formerly carried on at 18 widely scattered locations. Both Republic and Springmeier formerly occupied facilities in Newark but these were outmoded frame buildings that the companies had outgrown. The new facilities at MFS not only permit more efficient handling of package freight between street trucks and railroad cars, but help assure better service to shippers because of the time saved in switching cars.

They're Modern Structures

The freighthouse built for Republic is 486 ft long; that used by Springmeier is 220 ft long. Both are 40 ft wide. The two are similar in construction and incorporate the most modern materials and the latest features of design. They have reinforced concrete foundations and floors and structural steel frames enclosed with concrete blocks faced on the outside with brick. Parapet copings are of precast concrete. The roof decks consist of ribbed metal covered with insulation and composition roofing.

Door openings on the tailboard side of each building are fitted with 20-ft by 10-ft wood overhead doors, separated only by pilasters. On this side both buildings have continuous platforms and canopies. On the track side wood overhead doors 10 ft wide and 8 ft high, spaced 45 ft apart, are provided, which have individual platforms and canopies. To facilitate the handling of bulky shipments in the Republic freighthouse this structure has an outside concrete platform and ramp at one end, which is connected with the interior by a 10-ft by 10-ft opening fitted with an overhead wood door.

The office portions of the two freighthouses are appropriately finished and decorated. They have hung ceilings covered with acoustical tile and incorporating recessed fluorescent lighting fixtures; asphalt tile floors; and plaster walls with wainscots of glazed cement. The latter material, which is applied in four coats, was selected because it is washable, easy to maintain and requires no painting. This same material is used to cover the walls in the toilet rooms for their full height.

Color in the Offices

Windows in the office portions have metal projected sash and are fitted with venetian blinds. Private offices are enclosed with metal partitions; other par-



OPENINGS on track sides of both new structures have individual canopies.



WAREHOUSES have clear spans between side walls to give unobstructed floor space.



OFFICE SPACE is attractively decorated and partitions for private offices are metal.

titions are of concrete block. Telephone and electric wiring is carried in duct systems in the floors. The color schemes for the office portions were chosen to give a bright and cheerful appearance. In the Republic freighthouse, for instance, the floors are dark green, the walls are a lighter green, and the venetian blinds are also green.

The office sections are heated by forced hot air delivered through diffusers in the ceilings. For fire protection each building

has a dry line connected to the main by a motorized valve. There are four 50-ft hose reels in the Republic house and three in the Springmeier facility.

Both of the new freighthouses have ample parking and driveway areas on the tailboard side and both are served by three tracks on the opposite side. For handling merchandise between the warehouses, railroad cars and trucks a number of mechanized units are used, including four fork lifts and six Towmotor trucks.

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STANDARD CAR TRUCK COMPANY

DISTRIBUTES IT!

wherever freight cars roll. You'll deal with representatives who know your requirements and how to meet them economically to lick the "hot box" headache.

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AT CLIFTON FORGE new wing was added in 1955.



AT HUNTINGTON expansion plans are under way.



C&O Hospitals Show What

Management-brotherhood cooperation is the mortar, and solid employee support the bricks, in the hospitalization program built up on the Chesapeake & Ohio.

Two modern hospitals, an accredited school of nursing, an approved interne-residency program, and the services of top-rank physicians and surgeons, are some of the standout furnishings in the homebuilding analogy. Constructor is the C&O Railway Employees' Hospital Association.

Located at Clifton Forge, Va., and Huntington, W. Va., the hospitals are the focal points of the program, with direction and overall supervision coming from Chief Surgeon John M. Emmett at Clifton Forge.

Behind him and the program is a board of governors comprising nine management representatives (usually with high executive titles) and 10 from the employees' ranks (usually representing the various organized job and craft categories).

Nine so-called "annex" hospitals participating in the program through working agreements are at Richmond and Newport

News, Virginia; Hinton, Beckley, and Logan, West Virginia; Pikesville, Lexington, and Dayton, Kentucky; and Peru, Ind. Membership is essentially for employees in the Southern district though personnel beyond the boundary can belong with restricted coverage.

Non-operating employees' dues in the Southern district are paid by the railroad to match (or better) the coverage given other non-ops through the national railroad insurance program.

Among the 23,000-odd employees enrolled in the program is C&O President Walter J. Tuohy, he being one of those with "off-line" rights because Cleveland is not in the covered territory.

Services at the hospitals range from splinter-removal to bone-setting, from dermatitis care to delicate surgery, from cases of mumps to maternity. Arrangements for tubercular treatment and cardiac and brain surgery have been made with other institutions better equipped for these specialties, a phase of the program Dr. Emmett considers outstanding.

Operational expenses of the program are underwritten mainly by the voluntary dues paid by employee and pensioner members

of the association. Additional funds come from fees charged members' families (at reduced rates), non-member employees admitted at company request, and patients with no C&O connection who are treated as at any other institution.



CHIEF SURGEON EMMETT (second right), C&O President Tuohy (left) show enthusiasm at new wing dedication.



LATEST EQUIPMENT like sterilizing unit above is made available through railroad-employee-association cooperation.

◀ **MODERN PRACTICE** in surgery as at left, and in other phases of medical care, is a tradition developed since program was instituted in 1893.

Labor-Company Teamwork Can Do

Today's economy would hardly permit a hospital's total expenses to be borne by such limited sources, however. As Dr. Emmett points out: "The hospital program couldn't exist as it does except that it's liberally subsidized by the railroad."

C&O pays part of the staff salaries, handles maintenance, bookkeeping and payroll work, and most important, has provided the buildings and some fixed equipment. The company built a new wing on the Clifton Forge hospital in 1955; it will put

up a major addition at Huntington soon.

Employees pay \$4.60 a month, regardless of salary; pensioners pay less according to income—and there's no limit on the cost or length of treatment or confinement. (Continued on page 44)

One of the 'Best Paid Men in the World'

We first met John Morehead Emmett, chief surgeon of the Chesapeake & Ohio, just outside an operating room in the C&O hospital at Clifton Forge, Va.

A bleached white surgical mask was tied about his neck, and he wore a pale green costume of the cotton cap, boots, trousers and tunic of modern operating room practice. His eyes were serious, a little troubled, behind slightly steamed glasses anchored under coarse, heavy eyebrows.

The introduction was brief, the conversation terse. Doctor Emmett would be in surgery the rest of the morning. There would be time for other business, a few minutes for an interview if needed, later.

"I'm not primarily an administrator. I'm primarily a surgeon. That's the main pur-

pose of my life," he said later in the small, first-floor office of the hospital he runs for the C&O Employees' Hospital Association.

'Best Paid Men'

That office hints at the varied planes of this intense, slow-to-warm-to-you man. There's a wall lined with medical texts and space taken by several certificates of medical proficiency. There's posted a sentimental will made out by a man who died in a poorhouse; a loose stack of medical journals is leavened by railroad literature and the National Geographic. Someone has tacked up a tribute to "The Best Paid Man in the World" (the doctor) and there's a picture of a young boy with a hunting dog and a gun.

The boy, we learned in time, is the doctor's only son (he has four daughters) who recently joined the C&O after graduation from VPI.

They're still occasional hunting companions—the doctor, who keeps his own bird dogs, is partial to the hunting in Saskatchewan where you can find "the last of the upland game."

Not an administrator by choice, Dr. Emmett apparently is not without talent in this realm; the successful operation of the association facilities depends largely on him.

He's watched the hospital program grow since he first associated with it at Huntington in 1920, four years after graduating from the Medical College of Virginia and im- (Continued on page 44)

Service at work- for the B&O

The real test of a supplier's service comes *after* an order is placed. And the B & O can speak with experience on the service of ASF. After Ride-Control Packages were specified for the B & O's forward-looking car-modernization program, they were contacted by an ASF Service Engineer . . . not via an occasional telephone call or letter, but right on the spot in their own repair shops. His job—to help make sure that installation procedures were worked out to the B & O's best possible advantage.

This doesn't mean that Ride-Control Packages are tricky to handle or install—but there are matters of correctly adapting them to various types of trucks. The ASF Service Engineer has the ability to help get the job going smoothly—and he isn't afraid to get his hands greasy in the process.

In short, ASF's policy is simply one of putting our best into each product—and then helping our customers get the best possible service out of it. Is this service valued by ASF customers? They tell us it is—they ask for it often—and they get it. *You* can expect the same service. Providing it to any railroad is as fundamental with ASF as accepting an order!



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AMERICAN STEEL FOUNDRIES

Prudential Plaza, Chicago 1, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

Fire and Accident Losses Cost

Insurance engineering, with hard-hitting preventive programs and top-echelon support, points toward a better record on the railroads.

The sudden whack of two torpedoes split the night air as the freight engine rounded the deep curve of track. Quickly, the brakes were applied and the train bunched briefly, slowing as it lost momentum.

Shortly, the train was halted and from the caboose back on the curve two men dropped down to trackside. They paused a few moments in the gloom, circles of lamplight at their feet, then parted—one trudging toward the head end, the other down the line away from the train.

The latter paused a moment to light a cigarette, went on some 50 paces, and then, after a glance behind him, turned and retraced a dozen steps, apparently to keep his train in sight.

When whistled in, later on, he left a flaring fusee by the rail and returned to the caboose. As he swung aboard his cigarette butt arced into the roadside bushes—to fall at the feet of two strangers watching there.

On another railroad a fire blazed sud-

denly in a car shop. An alert worker bolted to a red-painted post and rushed back with a chemical tank—only to find it empty.

A quick call to other men had them unroll a hose from a far corner in the building but, on coupling it to a standpipe, they realized it wasn't long enough to reach the blaze.

In time, the fire was extinguished, but not before it had done serious damage.

Management Is Alert

The two men who crouched in the darkness—one of whom carefully crushed the discarded butt—were what might be called insurance engineers. What they saw was not unusual in their investigation of one road's operating practices—and when they reported the facts to the road's president, things began to change, fast.

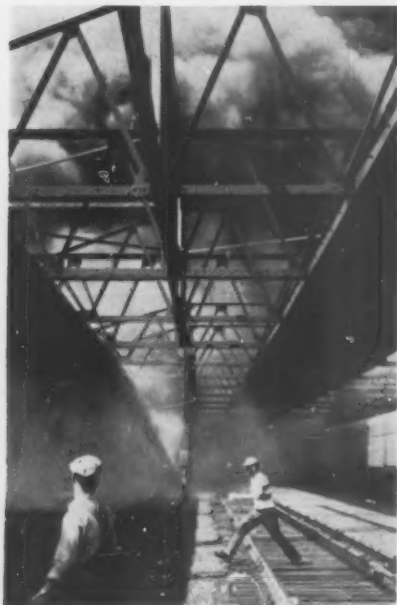
The car shop fire could be repeated in other shops on the second railroad's lines—and on other roads—to judge from

conditions as reported by investigators.

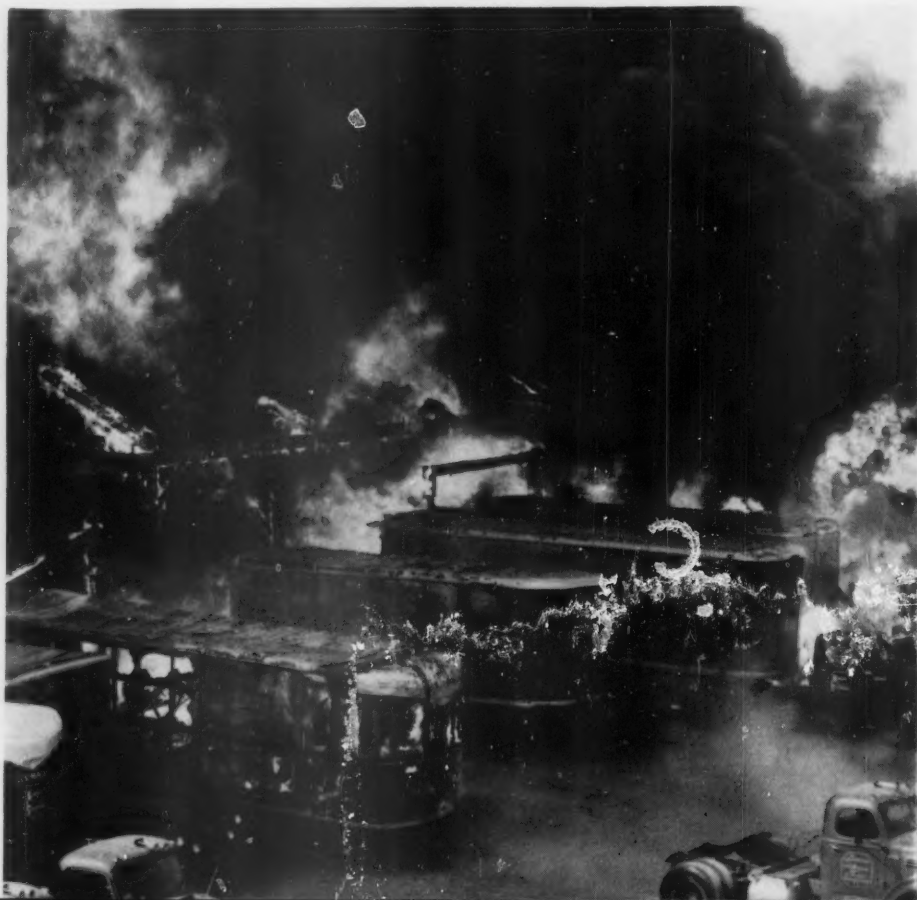
A look at the accompanying loss tables emphasizes the benefits in dollar savings alone that railroads can get from reduction of fire and accident losses. However, fires and accidents will persist and that's why they have insurance.

Some roads are self-insured (though some insurance men ask "self-insured or un-insured?" when they hear the term). Many that "buy" insurance, though, have the service of Railroad Insurance Underwriters, an organization representing 26 of the largest stock fire insurance companies in the country. RIU was set up early this year through consolidation of Railway Underwriters with the Railroad Insurance Association.

The organization, acting as the railroad department of the participating companies, enables railroads to obtain coverage through agents or brokers. Originally a fire insurance organization, the association got into inland marine and diesel locomotive coverage in the 1940's.



OPERATIONAL SNAFU following conflagrations in freight terminals (right) is only one of many setbacks a railroad suffers. Fast action, coupled with preparedness, can hold down fire losses when flames do break out in a passenger depot (above).



Too Much

The association had provided fire inspection services since 1920 but moved into insurance engineering in 1950 with the idea there was a job to be done by an outside party in checking railroad operating practices and means for fire loss prevention. Qualified engineering staffs were built up and the services made available in addition to coverage.

A railroad looking for insurance but wanting to minimize its premiums does it best by minimizing its losses. And so it can try to do the job itself or call on RIU for an operating or fire study—or both.

Engineers—how many and for how long depends largely on the size of the road—are assigned, first working out the details of full management support. RIU Manager Theodore W. Adams says the investigation depends on the inspector's being able to observe all factors. We've found wholehearted cooperation," he reports.

When the survey is made, a detailed report is drawn recounting all findings, without recommendations. Months later a recheck is made to be followed by subsequent checkups later on; a road's rating may be affected by correction of danger spots.

In a fire prevention study, the inspectors check on adequacy of water supply

Railroad Fire Loss Averages by Years

Calendar Year	Mileage Reported	No. of Fires	Amount of Losses	Average Loss Per Fire	Average Fires Per Mile	Average Loss Per Mile
1937	241,394	4,932	3,750,707	760	.020	15.54
1938	229,666	4,372	3,820,214	874	.019	16.63
1939	263,440	5,602	4,272,296	763	.021	16.22
1940	271,811	4,596	3,577,764	778	.017	13.16
1941	270,885	4,648	7,457,758	1,605	.017	27.53
1942	265,963	4,593	5,781,508	1,259	.017	21.74
1943	263,342	5,412	8,427,925	1,557	.021	32.00
1944	271,482	5,622	9,726,387	1,730	.021	35.83
1945	271,874	5,245	7,030,689	1,340	.019	25.86
1946	261,582	5,411	10,892,303	2,013	.021	41.64
1947	266,076	5,398	10,571,345	1,958	.020	39.73
1948	273,931	6,035	11,033,158	1,828	.022	40.28
1949	272,514	5,475	8,740,191	1,596	.020	32.07
1950	268,833	5,292	9,779,948	1,848	.020	36.38
1951	267,980	5,124	12,916,999	2,521	.019	48.20
1952	268,904	6,374	12,524,971	1,965	.024	46.58
1953	266,538	5,770	11,844,848	2,053	.022	44.44
1954	269,570	5,356	12,108,401	2,262	.020	46.92
1955	271,311	5,687	13,050,970*	2,295	.021	48.10
1956	267,650	5,524	12,913,522	2,337	.021	48.25

Source: Association of American Railroads

1956 Fire Loss Experience by Major Causes

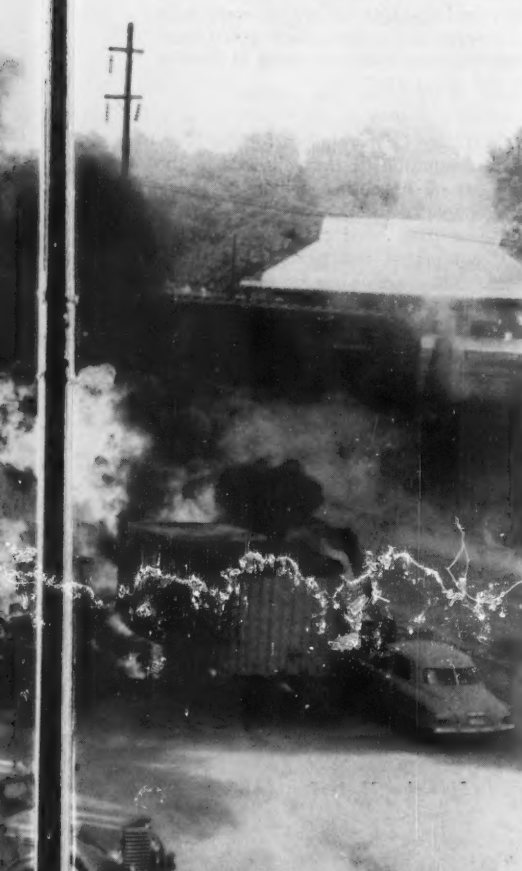
Causes	Number of Fires	%	Amount of Losses	%
Cause Unknown	1,029	18.64	\$1,763,548	13.65
Hot Box	716	12.97	1,356,622	10.50
Exposure	619	11.21	697,118	5.40
Cotton—All Causes	385	6.98	2,441,406	18.90
Trespasser	354	6.42	439,158	3.40
Careless Smoking	301	5.45	265,143	2.05
Generators, Motors & Elect. Equipment	232	4.20	811,267	6.28
Coal or Wood Stoves	163	2.95	118,593	.92
Sparks from Brake Shoe	156	2.82	193,330	1.50
Miscellaneous—Not Separately Classified	128	2.32	305,954	2.37
Occupational—Not Separately Classified	128	2.32	170,466	1.32
Sparks, Hot Coals or Burning Oil Drip	124	2.24	105,828	.82
Spontaneous Ignition	121	2.19	206,837	1.60
Burning on Right-of-Way	116	2.10	56,157	.43
Acetylene Torch	115	2.08	681,377	5.28
Outside Causes—Not Separately Classified	108	1.95	201,377	1.56
Power—Not Separately Classified	99	1.79	222,844	1.73
Car Heaters	82	1.48	90,038	.70
Incendiary	77	1.39	118,181	.92
Flues, Jacks or Chimneys	63	1.14	75,120	.58
Electric	61	1.10	126,431	.98
Lighting	60	1.09	353,921	2.74
Wrecks	55	.99	1,927,793	14.93

Source: Association of American Railroads

Damage to Property from Reportable Train Accidents

Year	Damage to equipment		Damage to way and structures		Cost of clearing wrecks		Total Amount
	Amount	Per cent of total	Amount	Per cent of total	Amount	Per cent of total	
1936	\$ 7,812,031	68.53	\$ 2,228,304	19.55	\$ 1,358,158	11.92	\$11,398,493
1937	8,007,621	66.75	2,488,971	20.75	1,500,180	12.50	11,996,772
1938	6,352,917	69.95	1,710,331	18.83	1,018,883	11.22	9,082,131
1939	6,861,172	71.26	1,676,055	17.41	1,090,851	11.33	9,628,078
1940	7,460,108	69.95	1,941,497	18.21	1,262,609	11.84	10,664,214
1941	10,994,310	70.18	2,843,793	18.15	1,828,976	11.67	15,667,079
1942	17,211,384	71.37	4,023,041	16.68	2,881,929	11.95	24,116,354
1943	16,274,490	65.29	5,251,145	21.07	3,399,845	13.64	24,925,480
1944	16,269,819	65.11	5,157,151	20.64	3,562,506	14.25	24,989,476
1945	18,809,916	65.32	5,975,040	20.75	4,013,020	13.93	28,797,976
1946	16,979,396	65.20	5,380,460	20.66	3,681,674	14.14	26,041,530
1947	21,411,423	66.41	6,344,129	19.68	4,483,629	13.91	32,239,181
1948	20,359,241	64.82	6,725,569	21.41	4,325,812	13.77	31,410,622
1949	19,061,365	66.31	6,078,417	21.14	3,608,806	12.55	28,748,588
1950	22,695,912	64.62	7,638,941	21.75	4,788,945	13.63	35,123,798
1951	33,413,815	68.11	9,662,034	19.69	5,984,774	12.20	49,060,623
1952	26,623,811	64.80	9,194,925	22.38	5,267,001	12.82	41,085,737
1953	29,371,682	68.33	8,707,001	20.26	4,903,681	11.41	42,982,364
1954	22,990,575	69.13	6,470,085	19.46	3,795,281	11.41	33,255,941
1955	34,714,852	72.11	8,583,982	17.83	4,844,569	10.06	48,143,403

Source: Interstate Commerce Commission



and pressure, the condition of pipes, hose, sprinkler systems, sufficiency of hose and extinguishers and other such details.

They also look into fire equipment maintenance, training of personnel to combat fire, hazardous conditions that could cause fires or impede firefighting, and even smoking rules—whether they are realistic and if they're enforced.

Operating inspections may include time in diesel cabs observing procedures like brake applications and compliance with signals, train orders and speed restrictions.

In any case, the emphasis is not on individual performances—the inspectors are not out to spy on personnel—but only to get a complete picture of the road under observation. Widespread, seemingly habitual rule violations or unsafe practices may be said in general to reflect overall policy that either is too relaxed or, paradoxically, insists too much on "performance first."

"We try to explode the myth of human failure," Mr. Adams says, adding that engineering inspections can not only improve the accident-fire prevention picture but also provide collateral benefits.

Tank Cars without Jackets

(Continued from page 14)

of America, representing LP gas producers and shippers, to the Chlorine Institute, the Bureau of Explosives, the ICC and a number of railroads.

Subsequently, with unanimous industry support, non-insulated pressure tank cars were approved by the AAR Tank Car Committee at the December 1956 meeting. Then the ICC waived its requirement that flammable LP gas and anhydrous ammonia be transported only in insulated tank cars. The revised regulation, effective June 26, stipulates that the exposed upper two-thirds of the tank must be painted a light, reflective color.

Phillips has 1,050 non-insulated tank cars on order for delivery in 1957 and an addition 350 for delivery in 1958. This order is split between American Car & Foundry Division of ACF Industries and General American Transportation Corporation. The cars being built are similar in design except that the ACF cars are of 11,700-gal water capacity and the General American cars, 14,600 gal. The ACF cars are white and black; the GATX

are grayish white above a black base.

Three hundred of the 11,700-gal cars have been delivered by ACF's Milton, Pa., plant to Phillips interchange points. Four hundred more are being prepared for delivery. Compared with conventional 11,050-gal insulated cars, the new 11,700 gal cars weigh 57,600 lb instead of 64,500 lb and are 35 ft 11½ in. overall instead of 37 ft 5½ in.

The first unit of a 350-car order for the 14,600-gal cars rolled out of General American's Sharon, Pa., shop last month. An additional 350 cars are scheduled for 1958. General American was asked to produce the largest capacity tank car that could be placed on 50 ton trucks. The new 14,600-gal car is the result. It also is reported to be the largest compressed gas car yet to be built.

The non-insulated cars are classified ICC 112A-400W. Tank walls are made of ¾-inch ASTM A-212B flange quality steel, a material of higher tensile strength than has previously been used. Design pressure for the new cars is 400 psi instead of 300 psi as on the insulated cars. The new cars are almost four tons lighter

Railroading



After Hours with *Jim Lyne*

OLD AUTOMOBILES—Argentina is well provided with railroads—probably better so in relation to population than any other Latin-American country. One reason, of course, is that intensive use of the automobile has not yet come to that country—and it will be slow in coming because of the high import tax on motor vehicles. The authorities justify the impost, apparently, on the grounds that there are other things more badly needed than automobiles for the limited amount of foreign exchange available.

It is a question of comparative values, which every country has to judge for itself in the light of its own situation. There are a lot of cars of prewar vintage running around down there, and I wouldn't be the one to say that under their conditions, that isn't just what they should do.

One new diesel locomotive with 10 new coaches will provide a lot more passenger-miles for a transportation-hungry people than an equal sum spent for individual automobiles.

LONG HOP BY AIR—This trip to Argentina was by far the longest one I ever took—and it gave me a chance to see air travel at what is, I suppose, its best. What you get from long-haul air travel is speed, and that is just about all. The crews do their best to be attentive and helpful, and the airlines are more than generous with free food and drink (hard or soft, as the passengers may prefer). But being cooped up in a plane for over 24 hours, with only two or three opportunities to get out and stretch your legs, is no fun.

If you want to get a berth on these long hauls, you can—at a very fancy price; and under cramped conditions which make the "rolling tenements" of old-style open Pullmans an incomparable luxury.

The airlines' safety record has greatly improved, and is a vast credit to them—but they face the inevitable handicap that a

serious mechanical failure aloft usually has fatal results. But most people will trade safety and comfort for speed—especially where, if you didn't have the speed the airlines offer, you'd have to stay at home. Which was the case with my going to Buenos Aires—it was either fly or not go at all.

IN ARGENTINA—The surest cure I can think of for the blues about the situation of the railroads in the USA is a look at the railroads of Argentina, which has been my privilege during the past couple of weeks.

Those railroaders down there have been carrying on under conditions of inadequacy of equipment and repair parts which you'd have to see to believe. They are using locomotives and cars well over 50 years of age, for which most spare parts have to be improvised.

There has been some new equipment coming along recently—including diesels, but the predominant part dates back to 1925 or before. And there is an insufficiency, regardless of its date.

LOTS OF PASSENGERS—The Argentine railways are not suffering from a lack of passengers, but from more traffic than they have facilities for. The manager of one of the lines told me that at the height of the evening rush hour, they have people on the engine tenders and pilot beams—for want of sufficient room inside the coaches.

I saw some figures down there indicating that the Argentine railways are producing about half as many passenger-miles as the U.S. railroads—with less than one-eighth the population. If U.S. railroads were getting the same ratio of passenger business to the population that the Argentine railways are, they would now be moving about 50 per cent more passenger-miles than they did during the height of World War II.

than the insulated cars of similar capacity. There are additional benefits in maintenance, too. Insulation maintenance is completely eliminated, and it is also easier to repair the tank itself. Corrosion damage is cut down, because there is no longer the problem of moisture collecting between the insulation jacket and the tank. By not using insulation, Phillips says that it will save about \$600 per car.

People in the News

CANADIAN NATIONAL.—Ergio Tucci appointed assistant solicitor, Montreal. L. C. Roy appointed district superintendent, department of colonization and agriculture, Toronto, succeeding R. M. Pym, retired.

CHICAGO GREAT WESTERN.—Effective September 11, Edward T. Reidy elected chairman of the board in addition to his duties as president. Robert F. McAteer elected chairman of the executive committee.

LOUISVILLE & NASHVILLE.—E. L. Blandford, division freight agent, Evansville, Ind., and Guy Weathers, freight traffic agent, Indianapolis, Ind., retired August 31.

LACKAWANNA.—Alfred H. Henckel, division engineer, Morris and Essex division, Hoboken, N.J., retired July 31.

MISSOURI PACIFIC.—Mark M. Hennelly appointed general attorney, St. Louis.

MONON.—S. Anderson appointed freight traffic agent, Chicago.

NORTHERN PACIFIC.—Frank S. Farrell, assistant commerce counsel, St. Paul, appointed commerce counsel there, succeeding W. H. Ploeger, resigned to enter private practice in Seattle.

SANTA FE.—R. H. Adams appointed acting superintendent, Kansas City division, Argentine, Kan., succeeding E. R. Robertson, named acting assistant general manager, Los Angeles, to replace F. N. Stuppi, temporarily assigned to other duties.

V. O. Smeltzer, assistant signal engineer system, Topeka, Kan., appointed superintendent of signals system, Chicago, to succeed G. K. Thomas, signal engineer system, Topeka, who retired August 31.

C. N. Gates, assistant signal supervisor, Newton, Kan., appointed signal supervisor there, succeeding E. H. Hahn, who retired July 31.

UNION.—Ben W. Smith appointed chief personnel officer, St. Louis, succeeding Theodore T. Short, resigned (Railway Age, August 26, p. 6).

OBITUARY

Sydney O. Berg, 57, assistant comptroller, Monon, died September 13 in Resurrection Hospital, Chicago.

General John A. Hulen, 86, board chairman of the Burlington-Rock Island and president and director of the Galveston Terminal, died September 13 at his home in Palacios, Texas.

Charles T. Kaier, who was named Morris and Essex division engineer, Lackawanna, Hoboken, N.J., August 1, died August 16.

Clyde F. Meyers, general manager of the Toledo Terminal, died September 10, following a heart attack.

William Stuart Wilson, Jr., 50, manager of freight sales and services, New York region, Pennsylvania, died September 15 at Elizabeth, N.J.

Facts & Figures at a glance

Retirement Board Payments Rose \$77 Million in Year

Railroad Retirement Board operations for the fiscal year 1956-1957 are summarized in the following excerpts from the RRB annual review:

Retirement and Survivor Benefit Payments	1956-57	1955-56
Total	\$678,000,000	\$600,700,000
Retirement:		
Employee annuities and pensions	455,000,000	396,400,000
Wives' annuities	68,800,000	61,600,000
Survivor:		
Monthly annuities	139,100,000	127,300,000
Lump-sum payments	15,200,000	15,400,000
Unemployment and Sickness Benefit Operations	1956-57	1955-56
Applications	473,000	377,000
Claims	2,468,000	2,053,000
Beneficiaries	351,000	288,000
Payments	2,369,000	1,911,000
Amount of benefits (net)	\$133,182,000	\$105,496,000
Unemployment Benefits	1956-57	1955-56
Qualified employees	1,477,000	1,482,000
Applications received	277,000	177,000
Claims received	1,533,000	1,123,000
Payments	1,434,000	1,022,000
Amount of benefits paid	\$83,154,000	\$55,456,000
Railroad Unemployment Insurance Account		
Balance, July 1, 1956		\$346,055,000
Receipts, total		81,933,000
Disbursements, total		133,172,000
Balance, June 30, 1957		294,816,000
Railroad Retirement Account		
Balance, July 1, 1956		\$3,605,142,000
Receipts total		723,892,000
Expenditures, total		687,090,000
Balance, June 30, 1957		3,641,944,000

July Accident Report

The ICC has published its Bureau of Transport Economics & Statistics preliminary summary of railroad accidents for July and the year's first seven months. The compilation follows:

Item	Month of July 1957	7 months ended with July 1957
Number of train accidents*	358	2,436
Number of accidents resulting in casualties	28	225
Number of casualties in train, train-service and nontrain accidents:		
Trespassers:		
Killed	82	411
Injured	66	361
Passengers on trains:		
(a) In train accidents*		
Killed	—	3
Injured	24	157
(b) In train-service accidents		
Killed	2	9
Injured	114	738
Employees on duty:		
Killed	24	102
Injured	924	6,050
All other nonpassengers**		
Killed	88	765
Injured	227	2,407
Total—All classes of persons:		
Killed	196	1,290
Injured	1,355	9,713

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of more than \$750 to railroad property in 1957. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nonpassengers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, were as follows:

Persons:		
Killed	85	724
Injured	197	2,056

21 Roads Fined \$13,100

Twenty-one roads paid fines totaling \$13,100 plus costs last month on 161 counts of Safety Appliance and Reports Acts of violations. The Interstate Commerce Commission reported that the Ann Arbor and the Baltimore & Ohio were each fined \$1,500 on 20 counts of violating the Safety Reports Act. The Nickel Plate, with \$2,800 in fines on 28 violations counts, and the Katy, with \$1,600 in fines on 16 counts, paid the largest total fines in the balance of \$10,100 in Safety Appliance fines.

Motive Power Utilization Keynotes RSPA Meeting

"Improved Motive Power Utilization" is the theme of the 1957 fall meeting of the Railway Systems and Procedures Association. The group will meet in the Morrison Hotel, Chicago, October 8-10. The program follows:

TUESDAY, OCTOBER 8

Keynote address by Patrick B. McGinnis, president, Boston & Maine.

How a Centralized Motive Power Control Bureau Contributes to Efficient Utilization on a Large Railroad—C.J. Haywood, superintendent motive power control bureau, Pennsylvania.

Applications of Operations Research to Improve Utilization of Motive Power—Prof. Russell L. Ackoff, director, and Maurice W. Sasieni, research associate, operations research group, Case Institute of Technology.

How the Boston & Maine Uses Budd Rail Diesel Cars—E. K. Bloss, general mechanical superintendent, B&M.

Utilization of Budd Rail Diesel Cars on the Baltimore & Ohio—E. S. Rupp, assistant to vice-president—operation and maintenance, B&O.

WEDNESDAY, OCTOBER 9

Improved Diesel Schedules—V. B. Gleaves, assistant to vice-president-operations, Frisco.

Mathematical Planning and Scheduling Freight Train Shipments on the Union Railroad—D. F. Morris, assistant to general manager, and H. R. Soyester, transportation engineer, Union.

Plane and Fancy Problems—Nelson B. Frye, assistant vice-president-traffic, Capital Airlines.

How Preventive Maintenance Improves Motive Power Utilization—Carlton L. Hall, director diesel methods and procedures, New York Central.

What Can Be Done to Get More Out of Motive Power—Tested Practices Discussed? Are Wider Applications Necessary? (panel discussion)—James H. Heron, superintendent motive power, Great Northern, moderator; R. B. Baldwin, coordinator of new methods, Bangor & Aroostook; Frank D. Sineath, assistant general superintendent motive power, Atlantic Coast Line; and J. J. O'Toole, consultant, operating, Milwaukee.

THURSDAY, OCTOBER 10

Design for Utilization—John S. Gallagher, Jr., director passenger research, New York Central, and Alan R. Cripe, director of design, Chesapeake & Ohio.

Uses of New Techniques on the French National Railroads—Pierre Deshayes, general representative for North America, French National Railroads.

Forward Thinking—Forward Action—John F. Nash, vice-president-operations, New York Central (lunch-eon meeting).

Dividends Declared

AKRON, CANTON & YOUNGSTOWN.—50¢, semi-annual, payable October 1 to holders of record September 16.

BEECH CREEK.—50¢, quarterly, payable October 1 to holders of record September 13.

CHICAGO GREAT WESTERN.—common, 50¢ quarterly, payable October 3 to holders of record September 23, and 2½% in stock, payable December 31 to holders of record November 29; 5% preferred, 6½% quarterly, payable September 30 to holders of record September 23.

KALAMAZOO, ALLEGAN & GRAND RAPIDS.—\$2.90, semi-annual, payable October 1 to holders of record September 14.

MAHONING COAL.—\$7.50, quarterly, payable October 1 to holders of record September 25.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—50¢ semi-annual, 25¢ extra, both payable October 30 to holders of record October 17.

NORWICH & WORCESTER.—8% preferred, \$2 quarterly, payable October 1 to holders of record September 16.

PIEDMONT & NORTHERN.—\$1.25, quarterly, payable October 21 to holders of record October 7.

PITTSBURGH & LAKE ERIE.—\$1.50, quarterly, payable October 15 to holders of record October 4.

SEABOARD AIR LINE.—6½% quarterly, payable September 27 to holders of record September 16.

SOUTHERN.—Mobile & Ohio stock trust, \$2, semi-annual, payable October 1 to holders of record September 16.

WESTERN MARYLAND.—4% 2nd preferred, \$1 quarterly; 5% 1st preferred, 3¾% quarterly; 7% 1st preferred, \$1.75 quarterly; all payable September 27 to holders of record September 17.

New Products Report



Hydraulic Draft Gear

A double-action draft gear designed to reduce damage to lading and cars resulting from rough handling is being tested under a variety of operating conditions on several lines. A hydraulic cylinder and piston unit is used to control impact shock without recoil and to cushion pull-out over a longer than normal stroke.

Excellent cushioning qualities are claimed for the unit by the maker. Since there is no period of uncontrolled slack, a long (8-in.) cushion stroke is practicable. There is a 7-in. cushion in buff when a

car is struck at rest. All movements of the coupler and shank are positively controlled by the hydraulic unit. Fluid flow on an impact stroke is independent of the flow on the pull-out.

Completely hydraulic control is achieved with relatively few moving parts. All operating pressures are confined to the hermetically sealed cylinder-piston unit.

The hydraulic draft gear uses a standard Type E coupler with a 24 3/4-in. shank. It can be installed in both new and existing cars. It is easy to remove and replace. *Welex Jet Service, Inc., Dept. RA, Fort Worth, Tex.* •



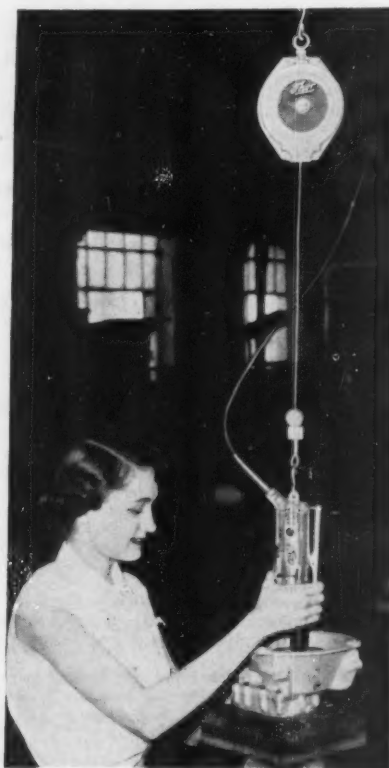
Preset Liquor Dispenser

Eight new liquor dispensing devices are now in use on Union Pacific equipment—on a train between Portland and Seattle, the "City of Las Vegas" and half the equipment on the "City of St. Louis" trains. The dispensers are preset at the

factory to meter the amount for a single serving. Accurate measurement is made possible while "miniatures" can be eliminated, with attendant inventory and purchasing advantages, the manufacturer says. *AutoBar Systems Division, American Machine & Metals, Inc., Dept. RA, Sellersville, Pa.* •

◀ Rotary Cutting Unit

A new machine is capable of cutting 20-in. or larger pipe, with a cut surface finish suitable for gasket face use. It can handle a 40-ft section of pipe with wall thickness of 7/8 in. or heavier. Controls to move the chucking drive up and down for centering are hydraulic, as is the locking system which holds the chuck in proper length position. Movement of the chucking device back and forth is electrical. *Wallace Supplies Manufacturing Company, Dept. RA, 1304 Diversey Parkway, Chicago 14* •



▲ Balancers Developed

Two new streamlined suspension balancers, featuring Thor's automatic "no drop" safety brake for the safe handling of air and electric tools, inspection gauges, welding and other equipment, have been introduced. Model 5LB6 will suspend loads up to 5 lb; Model 10LB6 is designed for equipment weighing 1 to 10 lb. Both have full swivel upper hook, with auxiliary suspension for safety. Spring-reel cable devices hold equipment at operating levels. *Thor Power Tool Company, Dept. RA, Prudential Plaza, Chicago 1* •

MARKET OUTLOOK *at a glance*

Carloadings Jump 14.7% Over Previous Week

Loadings of revenue freight in the week ended September 14 totaled 741,147 cars, the Association of American Railroads announced on September 19. This was an increase of 95,029 cars, or 14.7%, compared with week prior (revised); a decrease of 79,702 cars, or 9.7%, compared with the corresponding week last year; and a decrease of 76,087 cars, or 9.3%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended September 7 totaled 648,391 cars; the original summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, September 7			
District	1957	1956	1955
Eastern	94,881	105,138	106,309
Allegheny	127,572	133,775	137,330
Poconchos	54,535	53,295	52,557
Southern	109,628	109,906	110,167
Northwestern ..	106,757	111,140	129,079
Central Western ..	108,047	115,456	114,281
Southwestern ..	46,971	50,921	52,269
Total Western Districts	261,775	277,517	295,629
Total All Roads	648,391	679,651	701,992
Commodities:			
Grain and grain products	38,163	43,763	45,757
Livestock	7,467	10,495	8,948
Coal	119,637	121,407	116,661
Coke	9,735	11,140	11,747
Forest Products ..	34,389	38,664	40,303
Ore	82,029	71,450	87,290
Merchandise l.c.l. ..	47,537	52,540	53,886
Miscellaneous ..	309,434	330,192	337,400
September 7 ..	648,391	679,651	701,992
August 31	745,183	784,366	789,722
August 24	739,140	770,413	787,272
August 17	750,640	769,644	775,701
August 10	740,471	715,207	770,251

Cumulative total,
36 weeks ... 24,933,137 25,705,197 25,480,883

IN CANADA.—Carloadings for the ten-day period ended August 31 totaled 121,290 cars, compared with 86,368 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
August 31, 1957	121,290	46,078
August 31, 1956	145,886	47,993
Cumulative Totals:		
August 31, 1957	2,690,451	1,117,427
August 31, 1956	2,928,823	1,167,312

New Equipment

FREIGHT TRAIN CARS

► **Chicago & Eastern Illinois.**—Ordered 10 depressed-center, 125-ton capacity, flat cars from company shops for November delivery at cost of \$35,000 each.

► **Missouri Pacific.**—Ordered 50 70-ton covered hopper cars, General American Transportation Corporation; delivery expected fourth quarter 1958.

► **August Deliveries and Orders Up from 1956.**—New freight cars delivered last month totaled 8,758, an increase of 3,394 over same month in 1956 and an increase of 1,033 over July 1957, AAR and AAR report. Car orders for August came to 3,203, also an increase over 2,575 ordered in August last year and 1,251 ordered in July 1957. Backlog of cars on order and undelivered September 1 was 79,258, compared with 85,229 August 1.

Type	Ordered Aug. '57	Delivered Aug. '57	On Order Sept. 1, '57
Box — Plain	1,000	3,078	20,519
Box — Auto	500
Flat	35	154	2,800
Gondola	878	634	14,270
Hopper	550	3,203	26,885
Covered Hopper	400	655	5,496
Refrigerator	46	411	2,333
Tank	294	570	5,537
Caboose	10	129
Other	43	789
TOTAL	3,203	8,758	79,258
Car Builders	1,068	4,587	34,984
Company Shops	2,135	4,171	44,274

LOCOMOTIVES

► **Brazilian Railways.**—Submitted to General Motors Overseas a letter of intent expressing plans to purchase from GMD 100 diesel-electric locomotives at cost of more than \$16 million. Order is contingent on financing through Export-Import Bank loan.

► **Canadian Pacific.**—Ordered 117 diesel locomotive units at total cost of \$24 million to bring total CPR diesel fleet to 944 units, completely dieselizing British Columbia and Alberta operations; order is split as follows: General Motors Diesel to supply 31 1,200 hp road switchers for branch-line service, and 23 1,750 hp road switchers; Montreal Locomotive Works is to furnish 52 1,800 hp road switchers, 11 660-hp yard switchers.

PASSENGER EQUIPMENT

► **Great Northern.**—Ordered 15 additional sets of Budd Company disc brakes for installation on 175 cars in "Empire Builder" fleet; GN officials reported to have placed order following studies which showed use of disc brakes would appreciably reduce maintenance costs.

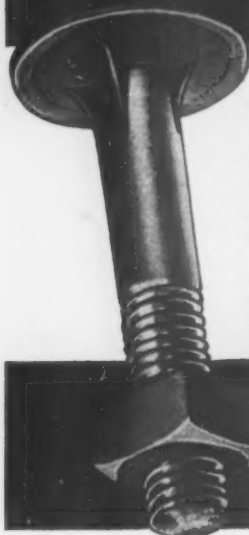
New Facilities

► **Northwestern Pacific.**—Projects underway include reconstruction of freight slip at Tiburon, Calif., at estimated total cost of \$26,000; and bypassing of Tunnel 26 in Eel River Canyon, at cost of \$20,000.

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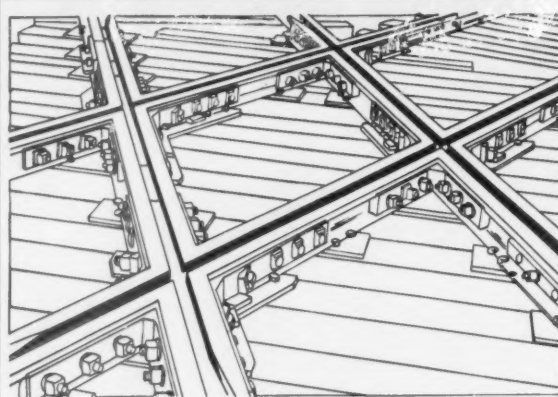
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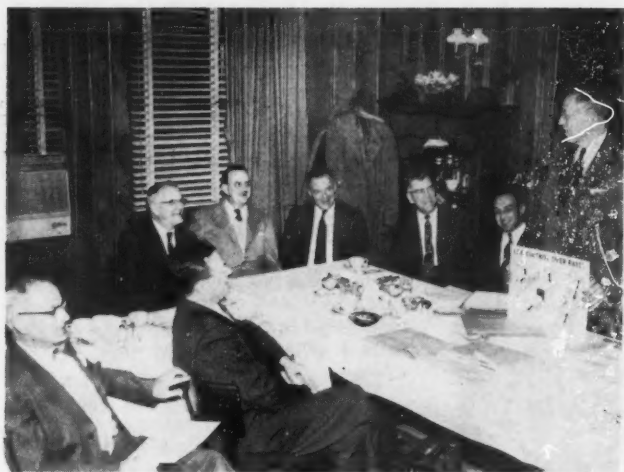
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ICC RATE INEQUITIES are explained to Baltimore industrial leaders by Pennsylvania Railroad's Joseph Bull at one of 24 "round table" discussions held by Baltimore ERPC unit. Such topics, balanced by reports of railroad constructive efforts, often feature the meetings.



STRATEGISTS CONFER before Rochester, N.Y., meeting with Chamber of Commerce directors. Chamber President R. L. John (left) scans program for meeting with ERPC members H. H. Vaughn, Pennsylvania, P. K. Groninger, Baltimore & Ohio, and J. W. Barriger, Pittsburgh & Lake Erie president.

KNIGHTS OF ERPC ROUND TABLES . . .

'Tooling Up' for New Community 'PR' Effort

"It's about time the railroads got around to telling their story this way. When you need our help, let us know."

That was the comment of an agricultural leader after he and other men like him at Flint, Mich., sat around a table after dinner to discuss "the railroad story" with representatives of the Detroit railroad community relations committee.

The meeting was one of hundreds that have been set up by the Detroit and other units participating in the Eastern Railroad Presidents Conference community committee program.

The program is the outgrowth of the efforts of the eastern road presidents them-

selves. Back in 1952, working in small teams, they set out to tell a straightforward story to leaders of state and national organizations.

They explained how unfair and outmoded regulations were destroying the financial health of the railroads, threatening their very existence. So successful were these sessions, that the ERPC set up 20 committees of local railroad men.

From among approximately 1,000 informed railroaders, some 75 teams of three men each were formed and a "round table" campaign was launched. Their objectives paralleled those of the presidential teams: to build among leadership

groups more active support of the railroad cause in terms of the public interest.

Under the direction of Carl Byoir & Associates, public relations counsel to ERPC, scripts and visual aids were prepared, team members were trained in their roles, and meetings with business, trade, professional and farm groups set.

Since the first such meeting was held in Indiana in February 1956, the round table approach has been developed as one of the industry's most potent opinion-shaping forces. The teams have found community leaders anxious to get the facts and they're now "retooling" for new campaigns starting this fall.

C&O, C&NW Swap RDCs, Coaches

The Chesapeake & Ohio has acquired its first Budd RDCs—via a swap with the Chicago & North Western.

In a straight three-for-three trade, C&NW sent the RDC units to C&O for a trio of light-weight, reclining seat coaches built by Pullman-Standard in 1950.

A C&O spokesman in Cleveland said the RDCs will be operated in "experimental" service to see where they are best

suited. Present plans call for the cars to go into regular service about January 1, 1958. Intercity operation seems to be in the offing, since the road has no true commuter service in areas where it now schedules passenger runs.

J. R. Brennan, C&NW passenger traffic manager, said the 52-seat coaches obtained from the C&O will be used in various trains to see how they will work out

with other standard C&NW equipment.

The cars came from C&O with fluted stainless steel sides, but C&NW officials indicated the cars will be repainted in the yellow-and-green of the road's passenger fleet.

The North Western's RDCs, now in C&O's Huntington, W. Va., shops for reconditioning, had been out of service for about a year before the trade.

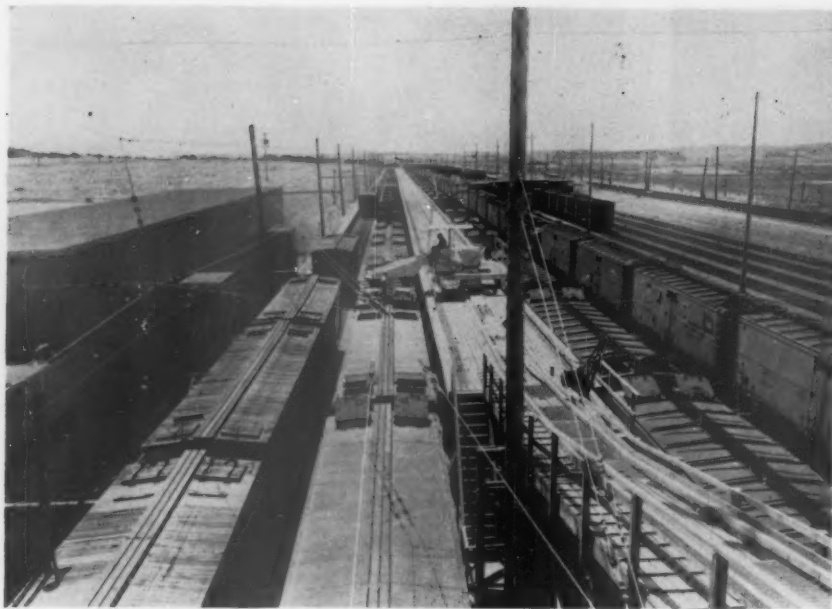
Five Pan-Am. Congress Prizes Went to U.S.

The Ninth Pan American Congress closed its two weeks' session in Buenos Aires on September 13—after designating Brazil as the location of the next

congress which is to be held in 1960.

Concluding business at the congress also included approval of the "streamlining" of the association's constitution to

provide for equal voting power in the governing body of the association by each participating nation. This change has long been favored by the U.S.A. and was



New Facilities Speed Movement of Potatoes

The Milwaukee's enlarged facilities in the Columbia River basin irrigation area were sending out carloads of potatoes at a 100-a-day rate during the last week in August—from what was a district of parched land not many years ago. Operations are pictured in progress at the road's Othello, Wash., yard, where new icing facilities were recently completed. Building at left is a mechanically refrigerated

ice storage house; cars adjacent to the structure are ice supply cars. Ice cakes are fed into a "Preco" icing machine, crushed into the desired size and conveyed into a chute extending out over waiting refrigerator cars. Cars are iced at a rate of one car every two minutes. The new yard has a capacity of 660 cars; icing tracks can accommodate 60 cars at a time.

approved without dissenting votes.

Also part of the closing business was the awarding of cash prizes—of which there were 15. Five went to U.S. railroaders, as follows:

Lloyd J. Kiernan (retired executive vice-president, B&M) for a paper on "Application of Scientific Research on U.S. Railroads;"

J. M. Finch (superintendent car service, New Haven) for a discussion of "Arrangement and Control in Yard Operations;"

Howard E. Simpson (president, B&O) for a report on "Selection and Training of Railway Employees;"

A. J. Greenough (vice-president, PRR) for a paper on "Reduction of Terminal Delays;"

Anthony A. Arpaia (ICC) for a discussion of the "Philosophy of Transportation."

Other prize winning papers included those of: Domingo Suaya (Argentina); L. Dante Porta and C. S. Taladriz (Argentina); R. N. Mogro (Bolivia); J. P. Diez Almirante (Argentina); Isaac M. Young (Argentina); Helio de Almeida (Brazil); M. Dodiuk (Argentina); C. E. Pinero Loza (Argentina); P. Hernandez (Argentina); O. A. de Araujo Lima (Brazil).

The government railways of Brazil received honorable mention for a report on the operation of their railway clearing house; and the Ministry of Communications of Mexico for a four-volume work

on railroad construction standards.

Probably the largest exhibition of railway equipment and materials ever held in Latin America was opened in Buenos Aires on September 7. The exhibition was arranged to coincide with the congress, but it will continue until December. The exhibition area covers some 50 acres, and consists of a considerable number of "track exhibits," as well as scores of smaller exhibits, housed in a series of temporary buildings.

Diesel locomotives from the principal U.S. builders are included in the exhibit, as well as one from France. There is a four-unit train (diesel powered at both ends), which was built in Hungary; a Fiat rail car from Italy; and several coaches built by a Dutch manufacturer.

U.S. manufacturers are well represented in the smaller exhibits in the temporary buildings. American Steel Foundries had a demonstration train running out of one of the passenger terminals.

U.S. railroad people and manufacturers were active in their contributions to the social events held in connection with the Congress; and among the regular participants in the discussion of the reports and papers presented at the Congress were two railroad chief executives (Clark Hungerford of the Frisco and Arthur Grotz of the Western Maryland).

Chairman William T. Faricy of the AAR was head of the official U.S. dele-

gation—other members of which included Chairman Owen Clarke of the ICC, Arlon Lyon, executive secretary of the Railway Labor Executives' Association, and J. G. Lyne, editor of *Railway Age*. Mr. Faricy was spokesman for the visiting delegations at the closing of the Congress, thanking Argentina on their behalf for her hospitality to the visitors.

The Congress was held at this particular time to coincide with the centenary of the Argentine railways, which fell on August 30. And on that day the country's century-old first locomotive, "La Porteña," made a memorial run, and under its own steam.

Murphy Cites ICC 'Headache' At Transportation Seminar

The place for college education in the transportation and traffic profession was spelled out at the American Society of Traffic and Transportation's fourth conference and seminar. The session, held at Georgia State College of Business Administration in Atlanta, Ga., September 12-13, heard Commissioner Rupert L. Murphy of the ICC say, "No single mode of transportation can afford to be complacent about its future simply because it has prospered in the past."

He declared, "applications for general rate increases by the carriers cause the commission some severe headaches. While the carriers may be able to justify a flat percentage increase, the operating conditions of a few carriers may be so much better or much worse than the average that special treatment is indicated."

Clare J. Goodyear, chairman of the board of directors, AMSTT and special assistant, transportation department, National Coal Association, emphasized the need for professional recognition for the field of traffic and transportation.

Importance of formal transportation education was emphasized by Frank L. O'Neill, president of the Associated Traffic Clubs of America and general traffic manager of the Minnesota Mining & Manufacturing Company. "On-the-job training cannot be expected to do the whole job training transportation men." He pointed to "one basic defect" in transportation and traffic curriculums. "Few traffic schools go beyond rate-regulation, routing, etc., into materials handling. It is vitally important to include materials handling subjects in a traffic education."

Charles A. Taff, professor of transportation of the University of Maryland pointed out that some larger colleges have dropped transportation courses in recent years. "In some cases these institutions have dropped transportation altogether. Transportation curriculum needs more support from those in the profession," he emphasized.

E. G. Plowman, vice-president, United States Steel Corporation, emphasized the need for the transportation industry to utilize transportation graduates in order to encourage college students to consider

transportation as a major field of study.

The second day's session was highlighted by a panel discussion on the subject of trained personnel essential for efficient transportation service. Panel Moderator W. Mason King, vice-president of traffic, Southern Railway System, explained how the Southern is using the Society's examination program as a part of its traffic department training program. "We move young men from place to place so these people can, at some time during their training, get to a large city where college courses in traffic and transportation are available," Mr. King told the conference. Currently, 145 men are taking part in the Southern's program.

"Today a young man cannot get into Frisco's traffic department unless he is a college graduate," said panelist J. E. Gilliland, vice-president, Frisco Railroad. He emphasized the high degree of skill and training necessary in today's complex traffic work.

Mr. Gilliland predicted, "something new in the form of rate making is coming in the future. Therefore, the railroads need a man who not only can read tariffs but also understand economics."

R. A. Goodling, president Dixie Highway Express, said, "Formerly, traffic personnel graduated from the office boy to traffic manager. The old idea that the best traffic salesman is the man who can drink the most and tell a better story is past."

F. A. Doebber was re-elected president of the society and H. Holloper, secretary-treasurer.

Erie-DL&W Will Extend New York Trackage Plan

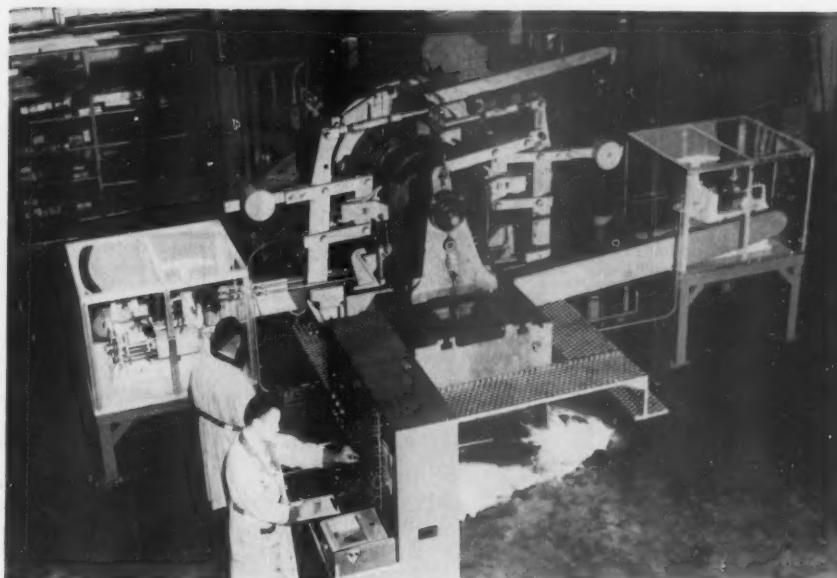
The Lackawanna and the Erie have announced extension of their plan to consolidate trackage in western New York State.

Originally set as a 48-mile program between Binghamton and a point near Elmira (Railway Age, June 17, p. 7), the plan has now been stretched 27 miles farther west to a point near Corning. The announcement made no mention of continuing studies of a proposed Erie-DL&W-Delaware & Hudson merger.

Lackawanna's double track main line would be eliminated over most of the total 75-mile distance. Freight and passenger trains of both roads would use the Erie double-track main line, local freight lines being retained by the DL&W for serving the road's present industrial customers.

Joint use of the Lackawanna's passenger station at Binghamton is planned, with Erie stations to be used over the rest of the territory, including Elmira.

It is estimated that maintenance costs on about 125 miles of track will be saved—the savings to be shared by the two roads. Sixty trains daily would use the joint line which would be equipped with the newest traffic signal and control devices.



AAR To Be Honored by Franklin Institute

The George R. Henderson Medal for meritorious inventions or discoveries in the field of railroad engineering will be awarded to the Association of American Railroads on October 16. The award will be presented by the Franklin Institute—"in recognition of the many achievements of the [AAR's] Mechanical and

Engineering Divisions in the many fields of railway engineering"—at the institute's annual Medal Day ceremonies. Photograph shows a railroad car wheel and brake shoe being put through rigorous tests by an AAR research engineer while another engineer observes and records the results.

Supply Trade

Simmons-Boardman Publishing Corporation has opened two new district sales offices, one in Philadelphia and one in Pittsburgh, to provide intensified service to the railway supply industry. The Philadelphia office will be in charge of W. E. Glasby, newly appointed district manager, at Jericho Manor, Jenkintown, telephone: TUrner 7-4526. The Pittsburgh office will be in charge of C. J. Fisher, newly appointed district manager there, at 530 Sixth avenue, telephone: GRant 1-8186. These and other district sales offices for *Railway Age* and its affiliated monthly publications are listed on page 6.

H. C. Wallace, assistant regional sales manager of the southern region of Air Reduction Sales Company, has been appointed regional sales manager of that region, at Houston, Tex., succeeding M. G. Wicker, resigned.

James P. Stine, East Coast zone manager of Thor Power Tool Company, has been promoted to manager of the New York branch, succeeding W. J. McGraw, recently named manager of Thor's electric tool division.

John J. Bollinger has been appointed sales representative, midwestern region, for the Spring Division of Crucible Steel Company of America, at Chicago. He was formerly manager of employee relations, Pittsburgh.

Robert H. Watts has been transferred from Ex-Cell-O Corporation headquarters in Detroit to their new warehouse and plant in Black Mountain, N.C. He will represent the railroad sales division throughout the southeast.

Newton H. Willis, recently named a vice-president of Waukesha Motor Company, has been placed in charge of the company's engineering activities. He will continue to direct the railway division.

Charles F. Farrell has been appointed Seattle district manager for the Edison Storage Battery

Division of Thomas A. Edison Industries. He joined the Edison Seattle district as a sales-service engineer in 1951.

BOOKS...

HANDBOOK OF AMERICAN RAILROADS

by Robert G. Lewis

This new 2nd edition (1956) provides a complete, illustrated data guide to the nation's 113 Class I line-haul railroad carriers. Contains a map of each railroad, prominent train photo, herald, historical sketch, biography of chief officer, financial and operating statistics, and equipment data. The author is publisher of "Railway Age."

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RAILROAD DIVISION

C&O Hospital

(Continued from page 31)

Regular members needing hospitalization away from home can in emergencies be admitted to a hospital wherever they are—and they're covered. Outpatient service for minor ailments is afforded at the 11 affiliated hospitals and at clinics set up on line.

The two hospitals—Clifton Forge has 210 beds, Huntington 165—have an approved program for general training in surgery, rotating young doctors, and each is approved for training four men a year in internal medicine, the programs attracting men from all over the world.

Hospitals Well Staffed

Huntington has a non-physician staff of about 150 while Clifton Forge has over 160, plus 60 student nurses, though 20 of these are usually studying a specialty under rotation elsewhere. Interestingly, a good percentage of these nurses are daughters of railroad employees.

Dr. Emmett is proud of his medical staff which includes several top men in surgery, dermatology, pathology, orthopedics, urology and many other fields of medicine. He and some of his staff are consultants to the Greenbriar Clinic for industrial executives at White Sulphur Springs—a completely separate thing from the REHA program.

'Best Paid Men'

(Continued from page 31)

mediately after doing a World War I hitch in France with the Marines.

He came to Clifton Forge in 1920, became chief surgeon of the association and of the C&O in 1939.

Noted as a leading surgeon—he carries on a heavy private practice—he's a member of the American College of Surgeons and the select American Surgical Society.

"I would never have stayed here so long," he states quite frankly "if it wasn't that this hospital makes it possible for a doctor to retain his identity in medicine."

Abdominal Surgery Specialist

The two association hospitals, he says, "not only keep pace" with medical progress, but also contribute to medical knowledge, particularly in the fields of stomach and abdominal surgery—his specialties. Being railroad-oriented hospitals has nothing to do with the emphasis on this kind of surgery, though. "I guess it's just the way we're living nowadays," he comments.

As to railroad casualties, "railroads just don't have much trauma any more. We get many more accidents off the highway than off the railroad." He thinks effective safety campaigns are responsible for this.

RAILROAD ENGINEERS AND EXECUTIVES

Long established firm of consulting engineers operating throughout the United States as well as in foreign countries has openings for engineers, administrative, and operating personnel with extensive railroad experience. Applications are solicited from recently retired railroad employees interested in temporary engagements or assignments as special consultants. Please submit complete summary of professional record, date available, salary desired, and interest in overseas assignments. Write Box 923, RAILWAY AGE, 79 West Monroe Street, Chicago 3, Illinois. All replies confidential.

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Minnesota Mining and Manufacturing Company	24, 25
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Knells for the Passenger Business?

Robert Bedingfield of the New York Times is one of the daily newspapers' ablest "railroad reporters." In that paper of September 15 he presented a gloomy report on the future of the railroads' passenger operations — both Pullman travel and coach business.

There is no doubt that there are parts of the passenger business that are very sick—but there are certainly some parts that are not. There are a lot of railroad people whose views of the passenger situation are dominated by their observation of what is going on in the unhealthy parts of it.

Mr. Bedingfield probably reflects the views of such railroad men.

If the railroads should withdraw—and were permitted—from that part of the passenger business for which there is no longer any economic justification, the business as a whole would quickly appear in a brighter light and, in this paper's opinion, a truer one. As it is now, parts of the business which have great "potential" are being held back by futile and distressing attempts to continue service in hopeless situations.

In the necessity of minimizing the losses of the traffic as a whole, railroads have been led to raise rates on services which might well earn more at lower rates. And runs which have enough business—actual or "potential"—to justify expenditures for up-to-date equipment are being denied this new equipment because the business as a whole is "running in the red."

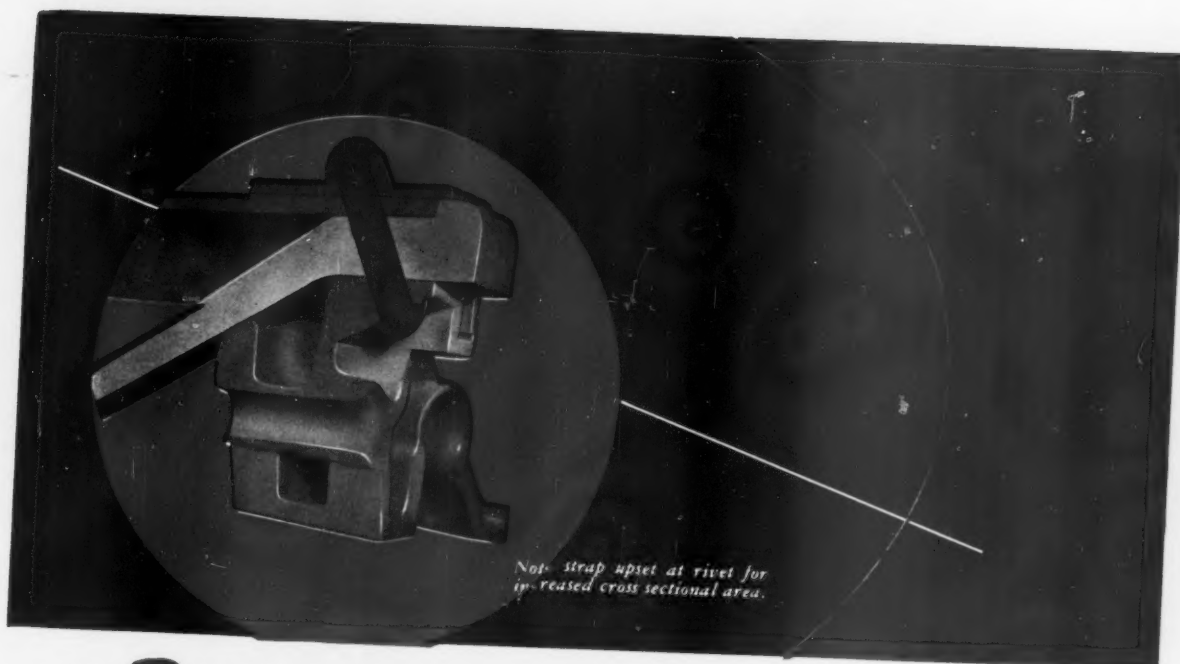
Any big business stays big and grows, to the degree that it succeeds in adapting itself to changing conditions. Most of the old-time blacksmiths found an easy transition into the garage business, as many of the "livery stables" turned into the taxi trade or local trucking. It used to be that gas was used primarily for illumination, but when the electric companies took away the lighting business, the gas companies did not cease to grow—they have done very well, indeed, by concentrating on the heat-producing side of their business.

The "accommodation" train, economically, has long been as dead as a dodo—but it survives, too often, as an expensive ghost, with its burden of costs transferred to the actually or potentially remunerative parts of the business.

Passenger traffic cannot, however, be made profitable again—merely by paring away the worst money-losing services. The parts of the business that are susceptible to growth need, first, to be clearly discerned. Then, such parts of the business need to be adjusted to the present-day market—from the standpoint of the right price, the right kind of service and the right kind of equipment. Such adjustment can be made on a basis of dependable calculations—not guesswork.

Railroads can still compete reasonably closely in overall speed with planes between population centers which are not too far apart. They can compete with the private automobile in speed and comfort for distances upwards of 200 miles, sometimes less. They could probably compete with long-haul buses and "coach type" plane service for relatively long hauls—if all such business were concentrated in trains hauling not less than 500 people, with rates adjusted to attract such trainloads. There certainly is a secure place for a lot of overnight sleeping-car service—and for some first-class service of even longer hauls, especially where scenic attractions are a factor.

LOOK AT THE EVIDENCE: The passenger business looks bad, as a whole, only because the bad parts are so bad that they more than offset the showing of the good parts. It is a case of "not seeing the forest for the trees," in reverse. With the passenger business, too many people see only the forest—and do not discern the sound timber still struggling along to grow; and which would thrive if given reasonable attention, and if the blighted trees were cleared away.



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